Yamarin Cross 60 Cabin

User Manual

FOREWORD

Congratulations on choosing a Yamarin Cross boat!

This user manual will familiarise you with the features of your new boat and help with its care and maintenance. It has been written to help you learn to handle your boat safely and avoid any problems. Make sure that you have received manuals for all equipment fitted on your boat. Supplement this manual with the specifications and manuals of equipment you purchase later for your boat. Space has been left for your own notes at the end of the manual. Please read this manual carefully and familiarise yourself with the craft before using it.

If this is your first craft, or you are changing to a type of craft you are not familiar with, please ensure that you obtain sufficient handling and operating experience before "assuming command" of the craft. This is highly important for your own comfort and safety. Your dealer or national sailing association or yacht club will be happy to advise you of local boating schools or competent instructors.

This user manual is not a detailed maintenance or trouble shooting guide. In case of difficulty please contact the dealer. Always use qualified and competent people for the maintenance, repair and modification of the boat. Modifications that may affect the safety characteristics of the craft must be assessed, executed and documented by competent people. The manufacturer is not responsible for modifications he has not approved.

Always keep your boat in a good condition and be aware that the boat requires maintenance and servicing. Any craft – no matter how strong it may be, can be severely damaged if not used properly. Always adjust the speed and direction of the craft to prevailing weather conditions.

We wish You enjoyable and relaxing times on board your Yamarin Cross Boat!

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Please keep this user manual safe and hand it over to the next owner if you sell your boat.

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BEFORE YOU SET OFF

Familiarise yourself with this user manual.
Always check at least the following items before leaving:

- **Weather conditions and forecast**
  Take the wind, waves and visibility into account. Are the design category, size and equipment of your boat, as well as the skills of the skipper and crew adequate for the waters you are heading for? Hull windows and hatches must be battened down during heavy wind and rough seas to prevent water incursion.
- **Loading and stability**
  Do not overload the craft, and distribute loads appropriately. Heavy items are to be placed in the storage compartments underneath the aft bench. Please consider that the stability of the boat is reduced if people stand up when on board.
- **Passengers**
  Ensure that there are personal flotation devices or lifejackets for all people on board. Agree on the tasks each person will be responsible for during the voyage before setting off.
- **Fuel and fuel system**
  Make sure that the boat has enough fuel, including a 20 % reserve for heavy weather or other unforeseen eventualities.
- **Engine and manoeuvring equipment**
  Check the function and condition of steering and the remote control, and carry out the routine daily checks specified in the engine manual.
- **Seaworthiness**
  Check the boat's seaworthiness in other respects as well: no fuel or water leaks, safety equipment on board, etc. Check that there is no water in the bilge.
- **Fastening of equipment**
  Check that all onboard items are positioned so that they are held in place also during rough seas and high winds.
- **Nautical charts**
  If you are not navigating in completely familiar waters, ensure you have nautical charts on board that cover a large enough area! If your boat is equipped with a chart plotter, learn to use it before setting off. Ensure that the plotter charts are of the latest edition.
- **Leaving the berth**
  Agree with the crew who will unfasten which mooring line, etc. Make sure that the mooring lines will not get entangled with the propeller during manoeuvring.
- **Obligatory equipment**
  What is considered obligatory equipment varies from country to country. Find out what is required for your boat.

You will find additional instructions concerning the engine in the separate engine manual.

1 General

The user manual will help you familiarise yourself with the properties and features, as well as the care and maintenance of your new boat. Separate manuals for installed equipment are attached and are referred to in many sections of the user manual. You can supplement this user manual by adding the manuals of devices which are installed afterwards. Space has been left for your own notes at the end of the manual.

The craft has a running serial number, a CIN-code (Craft Identification Number). The CIN-code can be found on the starboard side of the transom just below the bathing platform. We recommend that you write down the CIN-code in the declaration of conformity on the following page. When contacting the dealer, please provide the CIN-code and the type of craft. This helps in delivering the correct spare parts.

1.1 Declaration of conformity

DECLARATION OF CONFORMITY
Recreational Craft Directives 94/25/EC and 2003/44/EG

Manufacturer: Seliö Boats Oy
Module used: B (EC Type-examination)

THIS DECLARATION IS PREPARED BY

Prepared by: Konekesko Oy Marine

Address: Vanha Porvoontie 245

Postal code: 01300 **City:** Vantaa

Country: FIN Finland

NOTIFIED BODY

Name: VTT **ID number:** no. 0537

Address: P.O. Box 1000

Postal code: 02044 VTT **City:** Espoo

Country: (code) FIN Finland

EG type certificate: **VTT-C-9040-10-vene-001-12**

DESCRIPTION OF THE RECREATIONAL CRAFT

Hull identification number (CIN):	☐☐ - ☐☐☐☐☐☐☐☐☐☐☐☐
Recreational craft model:	**Yamarin**
Model or number:	**Cross 60 Cabin**
Design category:	**C**
Boat type*:	**03**
Hull type*:	**01**
Deck*:	**03**
Construction material*:	**01 / 02**
Propulsion*:	**02**
Engine type*:	**01**
Greatest permitted engine power:	**111.0**
Length and width of hull (m):	**6.03 / 2.33**
Draught (m):	**approx. 0.40**

* Please refer to codes on next page

I declare under my own and sole responsibility that the recreational craft mentioned above complies with all applicable essential requirements in the way specified on the next page.

Peter Krusberg

Signatory authorised by Konekesko Oy Marine
Product Development Manager, Konekesko Oy Marine
11/10/2012

Boat type:	**Deck:**
01 sail boat	01 fully decked
02 inflatable	02 partly decked
03 other: motor boat	03 open:
Hull type:	**Propulsion:**
01 monohull	01 sails
02 multihull	02 petrol engine
03 other:	03 diesel engine
	04 electrical motor
	05 oars
	06 other:
Construction material:	**Engine type:**
01 aluminum, aluminum alloys	01 outboard
02 plastic, fibre reinforced plastic	02 inboard
03 steel, steel alloys	03 z or sterndrive
04 wood	04 other:
05 other:	

ESSENTIAL SAFETY REQUIREMENTS	**ISO standards used**	**Other normative document used**
General requirements (2)		
Basic information	EN ISO 8666:2002	
Hull identification number – CIN (2.1)	ISO 10087:1996 / A1:2000	
Builder's plate (2.2)		RCD annex I, 2.2
Prevention of falling overboard... (2.3)	EN ISO 15085:2003 / A1:2009	
Visibility from the main steering position (2.4)	EN ISO 11591:2000, NBS 1990	
User manual (2.5)	EN ISO 10240:2004	
Structure (3.1)	ISO 12215:2008	
Stability and freeboard (3.2)	EN ISO 12217:2002-1 + A1:2009	
Buoyancy and floating (3.3)	EN ISO 12217:2002-1	
Openings in hull, deck and superstructure (3.4)	EN ISO 9093-2:2002, EN ISO 12216:2002	
Water incursion (3.5)	EN ISO 11812:2001, EN ISO 15083:2003	
Maximum recommended load (3.6)	EN ISO 14946:2001 / AC 2005	
Life raft stowage (3.7)		RSG Guidelines
Evacuation (3.8)	EN ISO 9094-1:2003	
Anchoring, mooring and towing (3.9)	EN ISO 15084:2003	
Handling characteristics (4)	EN ISO 11592:2001 / EN ISO 8665:2006	
Installation requirements (5)		
Engines and engine spaces (5.1)		
Inboard engine (5.1.1)		
Ventilation (5.1.2)		
Exposed parts (5.1.3)		
Starting the outboard engine (5.1.4)		
Fuel system (5.2)	EN ISO 10088:2009, EN ISO 11105:1997	
General – fuel system (5.2.1)		
Fuel tanks (5.2.2)		
Electrical systems (5.3)	EN ISO 10133:2000, EN ISO 28846:1993 / A1:2000	
Steering system (5.4)	EN ISO 10592:1995 /A1:2000	
General – steering system (5.4.1)		
Emergency arrangements (5.4.2)		
Gas system (5.5)		
Fire protection (5.6)	EN ISO 9094-1:2003	
General – fire protection (5.6.1)		
Fire-fighting equipment (5.6.2)		
Navigation lights (5.7)		1972 COLREG
Discharge prevention (5.8)		

2 Definitions

The warnings and cautions in this manual are defined as follows:

DANGER! Denotes an extreme intrinsic hazard exists, which would result in a high probability of death or irreparable injury if proper precautions are not taken.

WARNING! Denotes a hazard which can result in injury or death if proper precautions are not taken.

NOTE! Denotes a reminder of safety practices or directs attention to unsafe practices, which could result in personal injury or damage to the craft, its components or the environment.

SI system units are used in this manual. In some cases other units have been added in brackets. An exception is wind speed, for which the Beaufort scale is used in the recreational craft directive.

3 Warranty

The boat and its factory-installed equipment have a two-year warranty, starting from the first day of use. Please contact your dealer regarding any potential warranty issues. Please remember to provide the CIN-code. If possible, please provide a digital photograph of the subject of your claim. This usually speeds up the claims process.

4 Before use

4.1 Registration

Registration regulations vary from country to country. Find out what is required in relation to your own boat.

4.2 Insurance

Boat insurance can compensate damage occurring on water or during transport and lifting. Check who has insurance liability each time when having the boat lifted. Insurance also has an indirect effect on safety at sea: In the event of a serious accident or damage, you must, above all, concentrate on saving people. Insurance companies will be able to give more

information about different insurance alternatives. Check who has insurance liability each time when having the boat lifted or transported!

4.3 Training

No one is a born sailor.
Navigation courses are arranged by local yacht clubs or national boating associations where you can gain basic skills. However, please remember that you only become confident in boat handling, navigation, docking and anchoring after long practical experience.

5 Characteristics of the boat

5.1 General

This user manual is not meant to be a complete service or repair manual, but to guide the user in using his/her boat in a proper way.

5.2 Basic data

Recreational crafts can be constructed according to 4 categories (A, B, C and D) according to recreational craft directive 94/25/EC. This boat has been constructed according to design category C, which denotes the following:

The boat is built for conditions where the wind reaches a maximum of 6 Beaufort (approx. 14 m/s) and corresponding seas (significant wave height at most 2 metres). Such conditions may be encountered on exposed inland waters, in estuaries, and in coastal waters in moderate weather conditions.

Significant wave height is the mean height of the highest third of the waves, which approximately corresponds to the wave height as estimated by an experienced observer. Individual waves may reach up to twice this height. If the significant wave height is 2.0 m, the mean height of all waves is roughly 1.2 m.

Maximum recommended load: See *technical specification.*
Please also refer to section 5.4, ”Loading”.

Main dimensions and capacities: See *technical specification.*
Craft length, width, draught, total weight etc., as well as tank capacities are shown in the technical specifications.

Builder's plate:
Part of the previously mentioned information is given on the builder's plate, which is affixed next to the remote control. Supplementary information is provided in the appropriate sections of this manual.

Technical specifications

Model	YAMARIN Cross 60 Cabin
Design category	C
Overall length (swim ladder not included)	6.03 m
Width	2.33 m
Weight without engine, fluids and equipment	Approximately 960 kg
Weight on trailer with largest recommended engine	Approximately 1,303 kg Includes the boat (approx. 960 kg), a Yamaha F150 engine (approx. 228 kg) and the estimated weight of fluids, the battery and equipment (115 kg). NOTE! This is not the maximum total weight of fluids, the battery and equipment.
Weight on trailer with smallest recommended engine	Approximately 1,196 kg Includes the boat (approx. 960 kg), a Yamaha F70 hp engine (121 kg) and the estimated weight of fuel, the battery and equipment (115 kg). NOTE! This is not the maximum total weight of fluids, the battery and equipment.
Maximum weight of load / Maximum number of passengers	605 kg / 6 persons
Maximum load includes	605 kg / 6 persons (á 75 kg) + personal equipment 30 kg + fuel 80 kg + equipment 15 kg + possible life raft 30 kg
Maximum load on builder's plate (CE sign)	525 kg Includes passengers 6 x 75 kg = 450 kg + personal equipment 30 kg + equipment 15 kg + possible life raft 30 kg = total 525 kg
Weight at full load	1,835 kg Includes boat 960 kg + engine 235 kg + battery 20 kg + fixed equipment 15 kg + fuel 80 kg + basic equipment 15 kg + life raft 30 kg + passengers 450 kg + personal equipment 30 kg.
Maximum engine power	111.0 kW / 150 hp
Weight of largest recommended engine	235 kg
Fuel tank capacity	108 litres
Maximum draught at full load, engine up	approx. 0.4 m
Maximum height from water line at light load	approx. 1.85 m
Construction material	Deck: Reinforced plastic Hull: 5083 Aluminum
Colour codes: - Deck	 RAL 7046
Remote control cables	4.8 m

Hydraulic hoses	5.5 m
Maximum speed at boat test	Around 44 knots

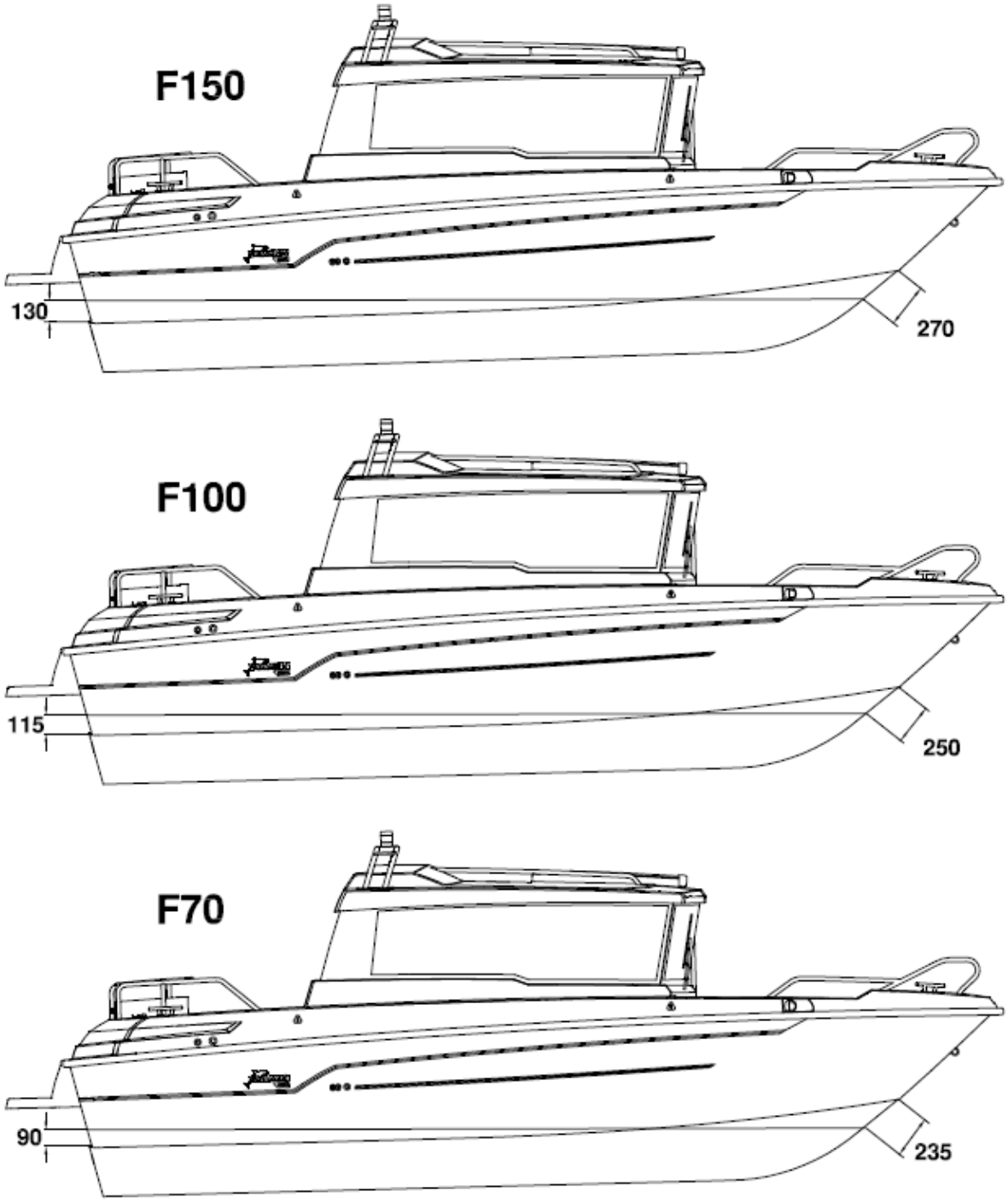


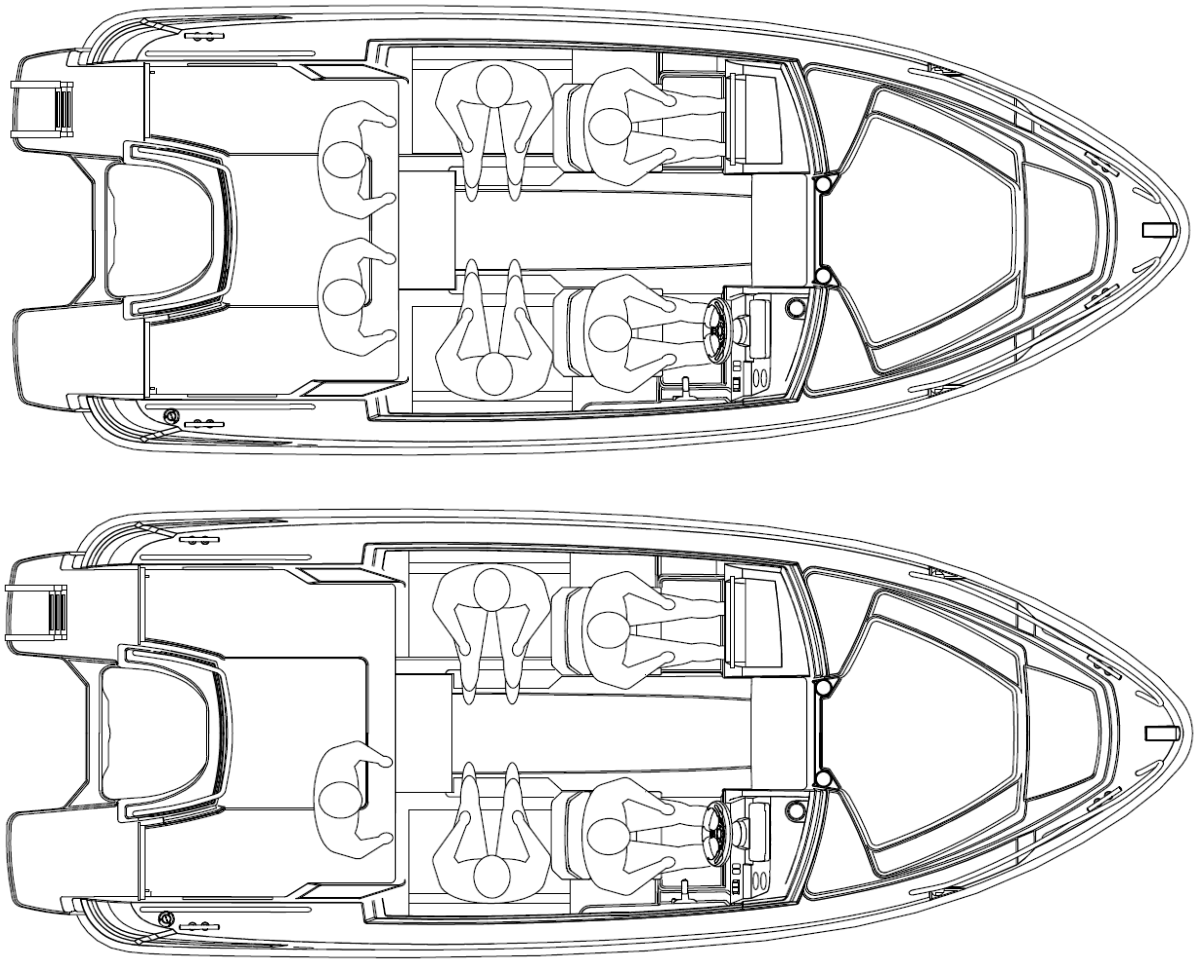
Image: Boat's antifouling measurement points.

Water line	Yamaha F70	Yamaha F100	Yamaha F150
At stern from chine up:	95 mm	115 mm	130 mm
At bow from chine down:	235 mm	250 mm	270 mm

5.3 Maximum recommended number of passengers

The boat's maximum recommended number of passengers is six persons.

WARNING! Do not exceed the maximum recommended number of passengers. Regardless of the number of passengers, the total weight of people and equipment must never exceed the maximum recommended load (please refer to *Loading*). Always remain seated on the boat. All persons on board must remain seated while the boat is moving.
No passengers are allowed in the bow cockpit space while driving.



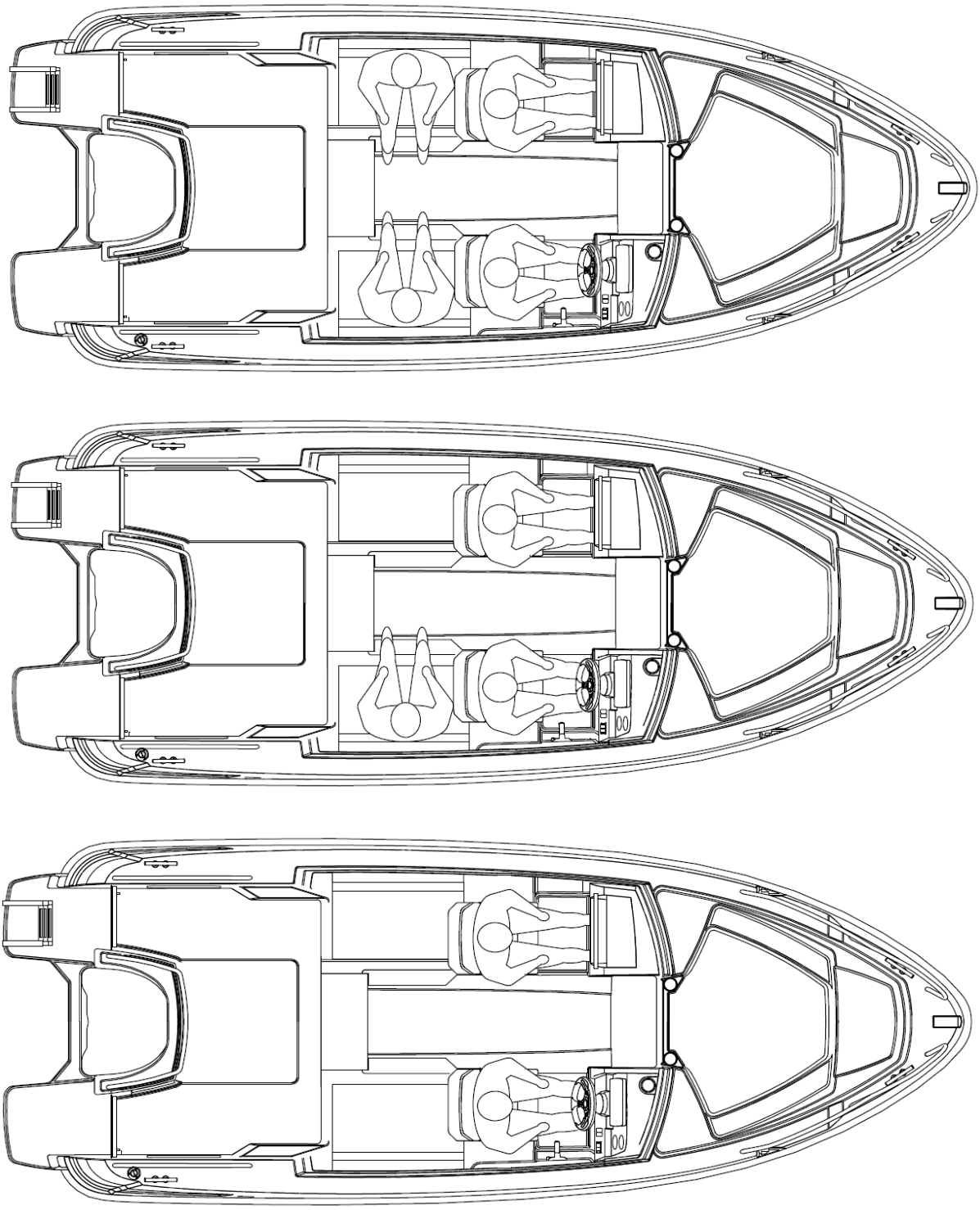


Image: Seats on the boat.

5.4 Loading

The boat's maximum permitted load is 605 kg. This load includes the following weights:

a) The total weight of passengers 450 kg (the default weight of an adult is assumed to be 75 kg and that of a child 37.5 kg).
b) Basic equipment 15 kg.
c) Personal equipment 30 kg.
d) Life raft 30 kg.
e) And liquids (fuel) in fixed tanks 80 kg.

NOTE! The maximum load only includes the above-mentioned weight components.

WARNING! **Never exceed the maximum recommended load when loading the craft.** Always load the craft carefully and distribute loads appropriately so that the boat is on an even keel. Heavy equipment should usually be placed in the storage compartments. Always avoid placing heavy items high up.

5.5 Engine and propeller

The greatest engine power recommended for the boat is 150 hp (111 kW). Do not use the boat if its engine has a higher power in kW than the one marked on the CE plate. Follow the dealer's instructions when choosing the propeller for your craft.

Yamaha F80	13½ x 15" M 6E5
Yamaha F100	13 x 19" M 6E5
Yamaha F115	13 x 19" M 6E5
Yamaha F150	13¾ x 19" M SS 6G5

5.6 Prevention of water incursion and stability

5.6.1 Hull and deck through fittings and closing valves

The boat has a rainwater draining system, which means that rainwater is drained from the undecked part of the boat when the boat is on the water. The system also functions when the boat is out of water, provided that the bow is higher than the stern and closing valve is open. The rainwater drainage valves are located in the leg room of the seats in the cabin, behind the maintenance hatches.
The valves must remain open to let rainwater drain from the boat.

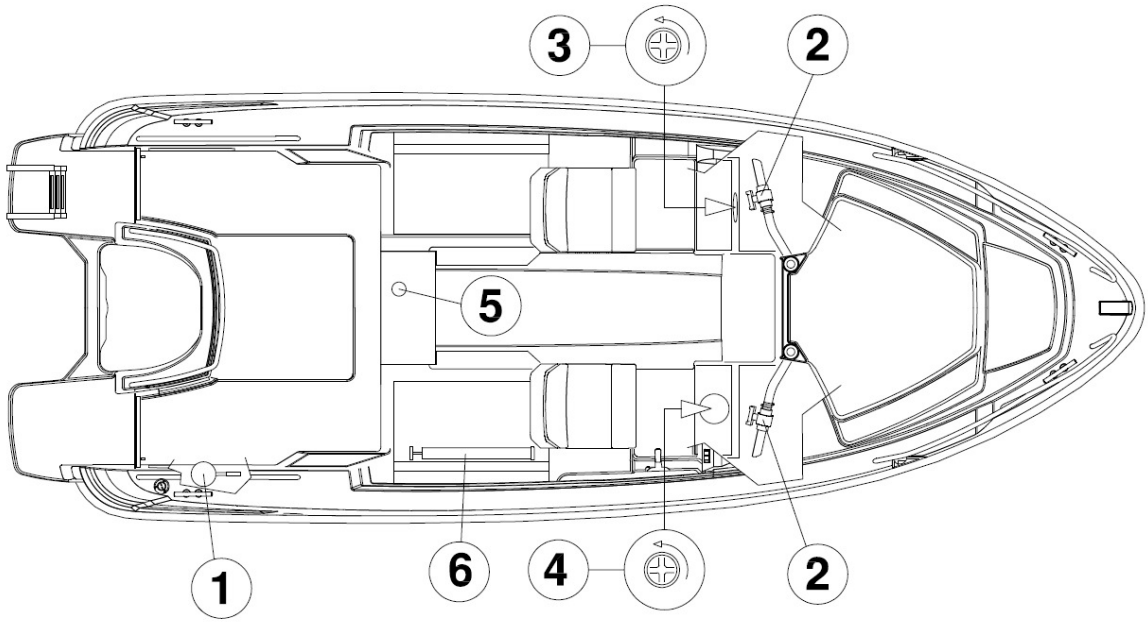
The boat is equipped with a manual bilge pump. The bilge pump is located on the SB side of the aft cockpit space. The manual pump has a capacity of approx. 0.5 litres/pull.

A maintenance hatch for a separate drainage pump is located on the bottom of the space under the aft cabin door's step. Any water that has accumulated in the bilge compartment can be drained through this opening.

The owner of the boat is responsible for ensuring that there is at least one baler or bucket on the boat and that it has been secured.

WARNING! The bilge pump system is not intended to cope with a leak caused by running aground or other equivalent damage (hull damage).

SAFETY MEASURE! Regularly check to ensure that there is no debris at the end of the suction hose of the bilge pump. The end of the bilge pump hose is located between the fuel tank and transom, and can be checked by detaching the floor hatch of the aft cockpit space.



1. Manual bilge pump
2. Closing valve
3. Maintenance hatch, BB side
4. Maintenance hatch, SB side
5. Maintenance hatch for drainage pump
6. Manual drainage pump

Image: Hull and deck through fittings and closing valves.

WARNING! The closing valves must always remain open.

Always close the closing valves when their inboard ends are constantly below the waterline due to loading.

WARNING! The boat's handling properties may become extremely dangerous if there is water in the bilge.

WARNING! In rough weather, hatches, drawers and doors should be kept shut to minimise the risk of them filling with water.

WARNING! The boat is not designed for use in temperatures below 0°C. The drainage system will freeze and cease to operate as designed.

NOTE! Make sure that water can flow unobstructed through the drainpipes. Debris like autumn leaves may obstruct the water flow, which can cause the boat to fill with water and sink. The bilge pump system does not work in conditions below 0°C.

NOTE! There is always some amount of condensed water in the bilge. A small amount of water may also come through the hull bushings, especially as the boat ages. Always remember to check the bilge before you leave the boat at quay or buoy, and always before setting off.

5.6.2 Stability and buoyancy

Please note that the boat's stability is reduced by any weight added high up on the boat. Any change in the distribution of weight on board may significantly affect the stability, trim and performance of your craft. Please remember that large breaking waves always present a serious danger to stability.

The amount of water in the bilge must be kept as low as possible.

The boat's stability may be impaired during towing, or when passengers are lifting heavy items.

5.7 Avoiding the risk of fire or explosion

5.7.1 Refuelling

Shut off the engine and extinguish any cigarettes before starting to refuel. During refuelling, do not use switches or appliances that can cause a spark.

When refuelling at a service station, do not use a plastic funnel, since it will prevent the tension between the refuelling nozzle and filling vent from being discharged.

Always keep a spare can of fuel on board. The BB side aft rope compartment is a suitable location for storing the spare canister. There is no risk of gasified fuel coming into contact with battery compartments or the electrical system from the compartment.

Check annually that the fuel hoses are not worn, especially at lead-ins.

Please note that depending on the trim of the boat or the boat's heeling angle, it might not be possible to use the full capacity of the tank.

WARNING! Gasified fuel is highly explosive. Observe these instructions and t he utmost caution during refuelling. The smell of fuel always means that there is gasified fuel on your boat.

5.7.2 Other systems that consume fuel (heater, optional accessory)

Separate user instructions exist for the heater, and they are not repeated in this manual. The location of the heater's fuel tank is in the storage compartment in the cabin's front step. Only use good-quality fuel. Turn off the heater when refuelling the tank. When handling fuel, do not use switches or appliances that can cause a spark. Always clean any spilled fuel immediately.

WARNING! The boat's main switch must not be switched off until the heater's flame has gone out and cooled down. If the main switch is switched off before the heater's flame has gone out, the heater may overheat, causing a risk of fire.
Refer to the manufacturer's instructions for how to use your heater.

5.7.3 Fire protection

The boat is equipped with a portable 2 kg fire extinguisher class 8A 68 B, which is the minimum power requirement for extinguishers. For the extinguisher to remain reliable, it should be inspected annually by an authorised inspector. In the event that the fire extinguisher is replaced, the capacity of the new one must be at least equivalent to the old. The extinguisher is located in the storage compartment in the cabin's aft step.

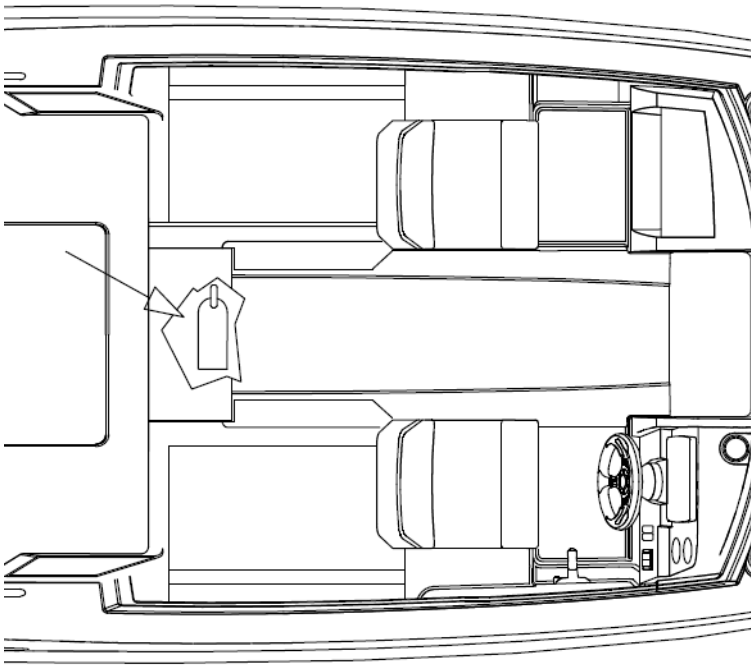


Image: Location of fire extinguisher.

Ensure that fire-fighting equipment is readily accessible even when the boat is loaded. Inform members of the crew about the location and operation of fire-fighting equipment.

Remember:

- Never block passages to exits and hatches.
- Never hinder access to safety equipment, for instance the switches to the electric system.
- Never hinder access to fire extinguishers located in a box.
- Never leave the boat unsupervised while the heater is on.
- Never make changes to any of the boat's systems (especially the electricity or the fuel systems) or allow an unqualified person to make changes to any of the boat's systems.
- Never refill a fuel tank when the boat's engine is running or the heater is on.
- Never smoke while handling petrol or gas.

NOTE! Always keep the bilge clean and regularly check for possible fuel leaks.

5.8 Main switch and fuses

Operation of the main switch:

- clockwise position -> circuit switched on
- counter-clockwise position -> battery disconnected

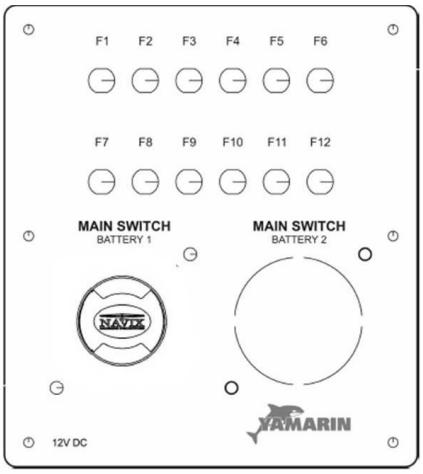


Image: Main switch and fuses.

Electric circuit fuses are located above the main power switch. Do not change the fuse amperages or install any components that exceed the nominal amperage of the circuit in the electric system.

When you leave the boat, switch the battery off using the main switch.

NOTE! Never switch off the main switch while the engine is running! It can cause serious damage to the engine's electric system.

NOTE! Never install electric equipment on the boat with the power switched on.

NOTE! Use the Extra circuit when installing additional equipment on the boat. Connect the appliance both to the power supply and grounding cables. Never use the hull of the boat as a grounding network.

NOTE! When connecting or disconnecting the battery, do not touch both terminals, or a terminal and the hull of the boat simultaneously with metal objects.

Fuses:

F1 = Navigation lights
F2 = Deck lights
F3 = Reading lights
F4 = Windshield wipers
F5 = Hydraulic trim pump
F6 = Radio (optional accessory)
F7 = Chart plotter (optional accessory)
F8 = 12V output
F9 = Heater (optional accessory)
F10 = Blower
F11 = Bilge pump (optional accessory)
F12 = Memory

5.9 Operation

If this is your first boat or a boat type new to you, take someone with experience of a similar boat with you the first few times.

NOTE! The boat's maximum propulsion power is 111 kW (150 hp). Do not use the boat, if its engine has a higher power than the one marked on the builder's plate.

5.9.1 Controls

You will quickly learn how to control your boat, but changing weather conditions, such as wind and waves, will always present new challenges for the driver. The remote control combines the functions of throttle, forward and reverse gears, and the adjusting of the engine trim angle. The boat is equipped with hydraulic steering.

5.9.2 Emergency switch

The emergency switch is a device with one end attached to the switch under the remote control, and the other end to, for example, your life vest. The emergency switch automatically switches off the engine when detached from the remote control. It is very important that the boat will come to a halt in the event that the driver, for whatever reason, loses his/her balance and is flung from the helm.

NOTE! Never take control of the boat without having attached the emergency switch to yourself. If you attach the emergency switch to your arm, do not steer the boat with that arm, because the emergency switch cord may be tangled in the steering wheel during tight turns.

NOTE! The engine will not start if the emergency switch is not attached to the switch on the remote control.

DANGER! A rotating propeller presents a life-threatening danger to a swimmer or a person that has fallen overboard. Always use the emergency switch to turn off the engine when a swimmer or water skier is about to re-enter the boat from the water.

5.9.3 Gearshift and throttle

The engine is put into gear by pushing the button on the gear/throttle handle upwards with your fingers, and by pushing or pulling the gear/throttle lever forward or backward, depending on the direction in which you are planning to set out. When the engine is in gear, you can adjust the boat's speed using the same gear/throttle lever.

When the boat is travelling forward slowly, you can use the reverse gear for braking when approaching the pier, for instance. You must not shift into reverse if the boat is travelling at higher speeds, because it will damage the engine.

5.9.4 Adjusting the engine trim angle

The following are the main rules when adjusting the trim angle:

- When bringing the boat to plane, keep the "bow down" position
- When the boat is planing and seas are clam, keep lifting the bow until you can feel that both the engine and the boat move very easily. In calm waters, the engine should normally be trimmed up at least 3 scale marks on the trim indicator on the revolution counter. If the engine is trimmed up too much, the speed of the boat will be reduced. If the boat is trimmed too low, the boat will run slowly and the engine will run heavily. To achieve good fuel economy it is important to drive the boat with the right engine trim angle.
- In heavy head seas lower the bow to allow it to slice through the waves better, thus providing a smoother ride.
- In following seas, raise the bow to avoid "diving" into the waves.

- Adjust the engine trim angle slightly upwards while reversing to make the engine run higher in the water.

WARNING! Do not drive the boat at high speeds with the engine trimmed up (bow up), as there is a risk of sudden heeling when the propeller hits the water again after a flight in heavy waves. Likewise, do not drive at high speed with the engine completely trimmed down (bow down) since this can cause the boat to pitch unexpectedly when the bow hits the water.

NOTE! The engine must be in a straight position when it is tipped up.

Do not drive at high speeds with a negative engine trim angle (= bow down).
The boat may heel and be unstable when turning.

The trim tabs can be used to adjust the boat's heel to make the boat run in an upright position in crosswinds or with an unbalanced load.
All planing boats lean into the wind, but the heel can be adjusted by lowering the windward trim tab. This makes the boat's sharp bow cut the waves, resulting in a much smoother ride. If you want to further reduce the waves' effect on the boat, you should trim the windward side up to lift it above the waves to an extent.

WARNING! Adjust the trim tabs carefully at high speeds – adjusting them radically changes the way the boat handles. Do not drive with the bow too low, since the boat may turn unexpectedly.

WARNING! Waves reduce manoeuvrability and make the boat heel. Take this into account by reducing speed when encountering heavier seas.

5.9.5 Starting the engine

1. Switch the power on using the main switch.
2. Lower the engine to the driving position by pressing the Power Trim button on the gear/throttle handle.
3. Check that the gear/throttle handle is in the neutral position and that the emergency switch is attached to the bottom of the remote control.
4. Switch on the current, using the start key, without starting the engine and wait a few seconds for the warning lights to light up.
5. Start the engine by turning the ignition key clockwise, until it starts. If everything is in order, the engine should start within 1-2 seconds. If the engine does not start, you should not try to start it for more than 10 seconds at a time.
6. After the engine has started, let it idle for a few minutes before setting off. (Please refer to the engine manual!)

For more detailed information, please refer to the engine manual.

5.9.6 Driving

It is easy to drive when the weather is fine and the sea calm. However, always remember to keep an adequate lookout. In order to maintain the best possible visibility from the driver's position, you should:

- Ensure that passengers do not restrict your visibility.
- Not drive near planing speed for long periods, as the bow will come up and reduce visibility.
- Look over the windshield when visibility is poor.
- Remember to also keep a lookout behind you, particularly on shipping lanes and heavily trafficked routes.

NOTE! Use navigation lights in darkness.

Always adjust your speed to prevailing conditions and the environment. Take into account the following:

- Waves (also consult the passengers on what is a comfortable speed).
- Your own bow wake (greatest at planing speed, least at speeds under 5 knots).
- Maintaining adequate lookout.
- Visibility (islands, fog, rain, driving against the sun).
- Knowledge of the route (time required for navigation).
- Rules of priority (other traffic).
- Width of the route (other traffic, noise and bow wake near shore).
- Make sure to always maintain a sufficient distance to avoid collision. The distance must be sufficient to stop the boat or to take evasive action.

When running at low speed, a planing boat's directional stability is poorer than at higher speeds. So be careful in narrow passages and, particularly, when meeting other boats and follow the international regulations on how to avoid collisions at sea, COLREG. Navigate with care and use new or updated nautical charts.

The running position of the boat greatly affects its handling characteristics and fuel consumption, as well as visibility from the driver's seat. You can affect the running position by:

- Placing the load properly. The general rule is that you should place as little weight in the bow as possible.
- Adjusting the trim angle.

The combination of the right running position with the right speed also makes driving in rough seas safer and more comfortable.

WARNING! A high speed and sudden manoeuvring in rough seas can lead to loss of control over the boat and large heeling angles.

WARNING! The boat is not designed for use in temperatures below 0°C. The drainage system will freeze and cease to operate as designed.

NOTE! The boat is not designed to jump waves. The warranty does not cover damage caused by flight. It is possible to check whether the engine has been airborne from the engine history on the repair shop's computer.

NOTE! No passengers are allowed in the bow cockpit space while driving.

NOTE! The boat's roof hatch and front door must be kept closed while driving.

NOTE! Sitting or walking on the boat's roof is not allowed.

NOTE! The boat's opening stern railings must not be leaned on while driving.
The railings must also be kept closed to prevent large waves from breaking over the aft deck.

5.9.7 Approaching and leaving the pier

Practise boat manoeuvring skills where there is ample space to learn how to approach a pier before entering a crowded marina.

A very gentle application of throttle does not generate sufficient steering power. Sharp but short throttle applications enable efficient steering movements when approaching the pier.

Ensure that everyone on board who does not have to stand up is seated when you are approaching the pier. Sudden steering movements may cause the boat to heel and injure somebody.

Before docking, prepare the mooring lines at stern and bow. Approach the pier bow first at a narrow angle. Just before touching the pier, steer against it and shift into reverse. Apply throttle quickly and sharply. The boat will stop and turn parallel to the pier. If possible, make the approach into the wind or current, whichever is the strongest. This makes departing easier as the wind or current will push the bow out from the pier. The easiest way to depart is to first push the stern as far away from the pier as possible, and then slowly reverse away from the pier into open water.

The propeller is designed to have the best grip in forward gear. Therefore, propeller performance is weaker in reverse. Neither does the boat have a similar steering response in reverse as in forward gear.

WARNING! The boat is fast. It will not stop instantly from plane. Slow down in time before anchoring, beaching or docking. Learn to estimate the distance the boat needs to come to a halt. Remember that steering control is poor if there is no traction.

WARNING! Do not try to stop the boat with your hands, and do not put your arm or foot between the boat and the pier, shore or another vessel! Practise beaching and docking under favourable conditions! Use moderate but firm engine power!

NOTE! When securing your boat, you must take into consideration possible changes in wind direction, a rise or lowering of the water level, any possible bow wakes, etc. You can get more information from your insurance company, for example.

5.9.8 Canopy use (optional accessory)

The canopy is designed to withstand a maximum speed of 30 knots at sea and 50 km/h in road transport. All press studs must be properly fastened when using the canopy. We recommend that you remove the sides and back of the canopy to make it fit into the protective bag more easily. Then, fold the upper parts of the sides entirely on top of the roof, so that no fabric remains where the corners of the canopy supports are. Finally, roll up the roof part along with the sides folded on top of it, and lower the canopy into the canopy box.

5.9.9 Doors and steps

The doors have not been designed to be used as railings when getting in or out of the boat. You should use the handles or side of the doorway for support. Please exercise caution while walking on the steps.

WARNING! The doors must be kept closed while driving.

WARNING! While the boat is stationary, large waves may rock the boat and make the cabin doors slam shut unexpectedly. For this reason, we recommend that the doors be kept closed when there is no one in the cockpit spaces.

NOTE! The front door and roof hatch must be kept closed while driving.

NOTE! The gates of the boat's opening stern railings must not be leaned on while driving.

5.10 Proper use – other recommendations and guidelines

5.10.1 Man overboard

It is always a serious situation when someone falls overboard. Rescue procedures should be practised in advance during good weather, because it is too late for practice when someone has fallen overboard.

It is always easiest to help a person climb on board from the water at the stern of the boat. A rope loop attached to the boat helps lifting. The boat's swim ladder extends 30 cm into the water.

It is very important to maintain visual and verbal contact with a person that has fallen overboard.

DANGER! A rotating propeller presents a life-threatening danger to a swimmer or a person that has fallen overboard. Always use the emergency switch to turn off the engine when a swimmer or water skier is about to enter the water or re-enter the boat from the water.

5.10.2 Securing loose equipment

Secure all heavy equipment, such as anchors, firmly in place before setting off.

5.10.3 Respect for the environment

Conservation of the environment is a matter of honour for every boater. Therefore, you should avoid:

- fuel and oil leaks
- emptying garbage and waste into the water or on the shore
- letting detergents or solvents get into the water
- loud noise both on the water and at the marina
- producing an unnecessarily high bow wake, especially in narrow passages and shallow waters

Service the engine well and run it at the most economical speed, which will also keep exhaust emissions low.

Please also consider other local environmental legislation and regulations.
Please make sure to familiarise yourself with the International Convention for the Prevention of Pollution From Ships (MARPOL) and respect it to the greatest possible extent.

5.10.4 Anchoring and mooring the boat

Always moor your boat carefully, even in sheltered places, because conditions can change rapidly. Mooring lines should be equipped with absorbers to dampen any jolts. Please refer to the section on towing for the location of bollards. To prevent abrasion, use fenders that are large enough.

The hook located at the bow of the boat is for locking the boat to trailer. The hook on the deck is for locking the boat (e.g. to a pier). The locations of the hooks are presented in Paragraph 8.

NOTE! Make sure that the lock or chain does not scratch the deck of the boat.

The forward endurance of the bow bollards is at least 15.9 kN, i.e. approximately 1,500 kg. The backward endurance of the stern bollards is at least 10.9 kN, i.e. approximately 1,050 kg. The ultimate strength of mooring lines should be smaller than that of the bollard they are attached to. Thus, the mooring line will break before the bollard or its attachment gives out.

The minimum anchor weight for the boat is 7.5 kg. Drop anchor far enough from shore. A moderate grip is attained if the anchor line length is 4–5 times the water depth.

WARNING! Do not try to stop the boat with your hands, and do not put your arm or foot between the boat and the pier, shore or another vessel!

NOTE! When securing your boat, you must take into consideration possible changes in wind direction, a rise or lowering of the water level, any possible bow wakes, etc. You can get more information from your insurance company, for example.

NOTE! It is the owner's / user's responsibility to make sure that the boat's mooring and anchoring equipment is suitable for the boat's intended use.

5.10.5 Towing

When towing another boat, use a floating line that is strong enough for the task. Begin towing carefully, avoid jerks, and do not overload the engine.

The owner of the boat should consider the measures necessary for securing the boat's towrope.

If you are towing, or if your boat has to be towed, attach the towline to the stern bollards as per the following image.

WARNING! When towing, the towline is under high tension. If it should break, the end that has snapped off may lash back at fatal speed. Always use a thick enough rope and avoid the line of the towrope.

NOTE! When towing another boat or being towed, always drive at low speed. If the boat has a displacement hull, never exceed hull speed while towing (speed before boat rises to plane).

NOTE! The towline should always be fastened so that it can be unfastened under load.

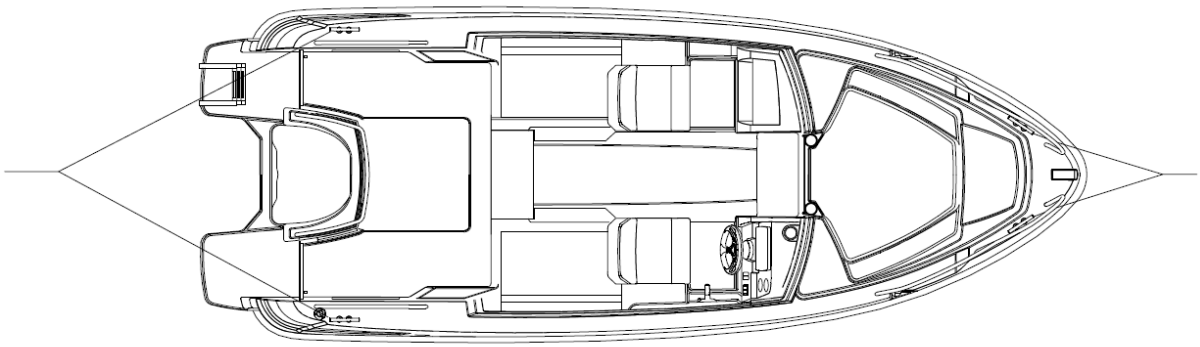


Image: Location of anchoring bollards during towing.

5.10.6 Trailer transport

Weight information for trailer transport can be found in the *technical specifications*. The trailer's keel supports should carry most of the weight of the boat. Adjust the keel supports so that the boat cannot slide from side to side. For more information on correct support and trailer size, please turn to your dealer.

Clean the supports of sand and dirt, so they will not scratch the bottom of the boat. Double-check that the trailer is securely coupled to the trailer tow hitch!

The place for lifting the boat out of the water should be sheltered, and the ramp should extend deep enough into the water. Reverse the trailer so deep that the rearmost keel support is just above the water. Drive the boat carefully towards the rearmost keel support and fasten the winch cable to the trailer hook.
Reel the boat up onto the trailer, taking care that the boat remains straight on the trailer's centre line. Remember to trim up the engine before reeling the boat onto the trailer, so it will not hit the bottom.

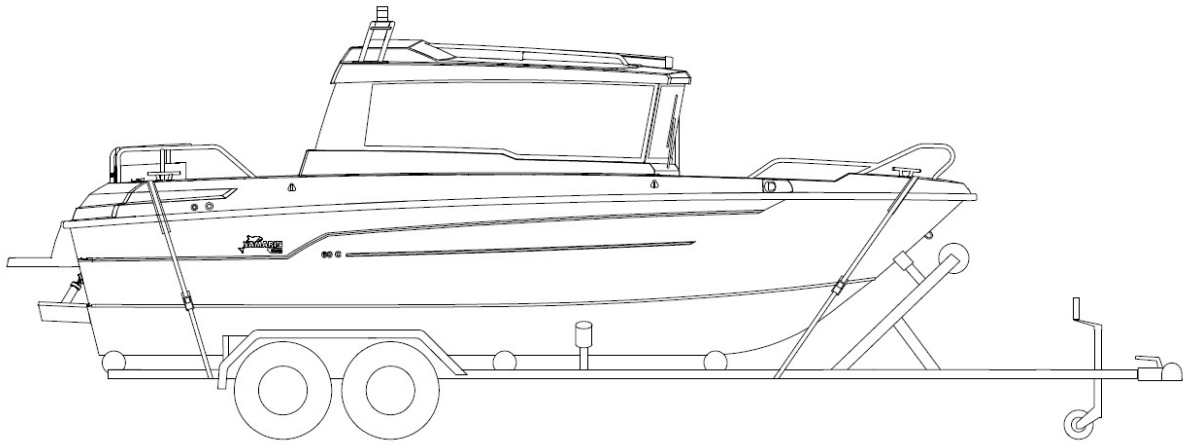


Image: Attaching the boat to the trailer.

Tie the boat properly before beginning transport. The sling ropes at the bow should be directed down and back, and the sling ropes at stern should be directed down and front. Do not leave any loose equipment or extra load on the boat when it is being transported. Remove the seat cushions and close all hatches properly.

The engine should be in the driving position during transport. However, ensure that there remains adequate clearance. If the clearance is not sufficient in this position, you can transport the engine raised. In such cases, lock the engine in the up position.

Wash the boat immediately after transport. Take special care when washing an aluminum hull if the roads have been salted. Road salt can leave permanent marks on an aluminum hull if it is not washed off. If the boat is kept on the trailer between transports, you must loosen the sling ropes for the duration and only tighten them before the next transport.

NOTE! The trailer should be slightly front-weighted. Make sure that the boat is fastened tight enough to the trailer, and that the weight of the boat is divided equally between side supports. If the boat swings against a side support during transport, it can result in hull damage.

When letting the boat down from the trailer, remember to fasten the bow rope to the boat beforehand so that you can release the cable from the trailer hook as soon as the boat is in the water. Be careful with the winch handle!

5.10.7 Docking

A storage cradle should be sufficiently steady and suitable for the boat's and engine's dimensions. A sturdy plank (2x4"), should be placed between the "V" trestles to support the keel and to bear most of the weight of the boat. The boat must not rest on the side supports. The side supports should not be placed touching the bottom chine, and point loads should be avoided. The supporting structures should be strong, particularly near the transom, to support the added weight of the engine. Storage cradle dimensions are shown in the picture below.

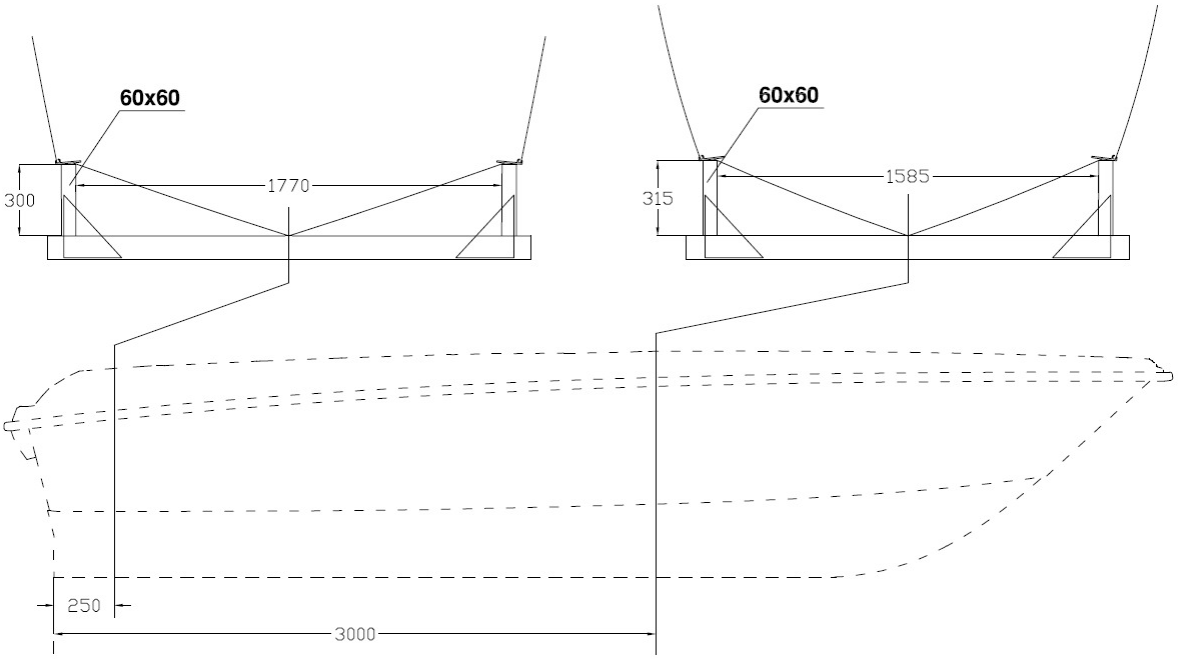


Image: Storage cradle dimensions.

Only use reputable lifting companies or boat yards with sufficient lifting capacity. In addition to the boat's tare weight (please refer to the technical specification), also take into consideration accessories and other possible loads in the boat.

When the boat is being lifted, the lines must be placed under the boat and the boat must remain horizontal during lifting.

NOTE! The boat must not be lifted by its bollards.

DANGER! Never stand under a boat that is suspended from a crane.

6 Servicing and maintenance

Keep your boat and its equipment clean and tidy. This increases comfort and safety on board, as well as the boat's resale value.

Familiarise yourself with the service procedures shown in the engine manual (see annex). Carry out the procedures carefully, or ensure they are performed by an accredited service company

6.1 Washing and waxing the boat

Cleaning fibreglass surfaces

Normally it is sufficient to just wash and wax the deck and sides. Special boat cleaning agents are most suitable for the purpose. Do not use strong solvents; they can cause glossy surfaces to fade. Mildly abrasive polishes can be used to remove chafes and embedded dirt from the deck. The boat's aluminum and fibre glass surfaces can be washed with a pressure washer. Observe the chemical manufacturer's instructions when washing and cleaning the deck.

Useful tip: Washing the boat will be easier if it is done immediately after getting the boat out of the water.

NOTE! Do not spray water with a pressure washer on the caulking seam under the rubbing strip. Pressurised water can damage the glued seam.

NOTE! Do not spray water directly on the boat's air grills, or the water may penetrate the boat's interior and structure.

The instrument panel is made of plastic and can be washed with soap water; never use solvents to clean it.

Cleaning the aluminum hull

The hull should be washed with a special aluminum cleaning agent.
Remember to dry the boat.

The waterline and bottom of the boat must be washed in temperatures of at least +10 °C, and only after the hull is completely dry.

Protecting the aluminum hull

When the aluminum hull is completely clean and dry, it can be protected against oxidation. Oxidation is a natural reaction of aluminum against corrosion and does not affect the boat's quality.

Useful tip: When the boat has been washed with tap water, a thin chalk-like layer of lime and minerals will remain on the boat’s surface after it has dried. The problem can be eliminated by adding a few drops

of pine oil soap into a bucket of rinsing water, which will soften it.

Useful tip: Water and lime stains on stainless steel rails and handles disappear when you apply some Lemon Pled furniture spray.

Useful tip: If the boat's ropes smell bad after the season, immerse them for a couple of hours in a bucket of water with a bottle of apple vinegar and a splash of fabric conditioner added. Allow the lines to dry properly, and they will be as good as new.

NOTE! Make sure that the cleaning, polishing and protective agents you use are suitable for aluminum and the other surfaces you will treat with them. Always follow the chemical manufacturer's instructions.

6.2 Care instructions for seat cushions

To keep the boat's seat cushions in good condition, they should be stored in a dry, well-ventilated space. If the cushions remain damp for any length of time, they may get mouldy and be ruined. The warranty does not cover cushions spoilt by rain or damp.
The warranty does not cover ripped seat cushions.

6.3 Care instructions for the canopy (optional accessory)

Store the canopy over winter in a dry and well-ventilated place. The press studs of the canopy should be sprayed with silicon spray every now and then; otherwise, they may become so tight that the canopy will tear when trying to open them. The warranty does not cover a torn canopy.

6.4 Care instructions for the windshield

The boat's windshield is made of tempered glass and it can be cleaned with ordinary glass cleaners.

Useful tip: When wiping the boat's windshield dry after cleaning, avoid using circular motions. This can leave circular smudges on the windshield that become visible in sunlight, impeding visibility. Wipe off any streaks with dry newspaper or cotton cloth using first horizontal, then vertical motions. Repeat this a few times and you'll bring the windshield to a brilliant shine.

6.5 Care instructions for the stainless steel components

To keep the boat's stainless steel parts, such as rails, handles and bollards, shining as good as new, the boat's owner should keep the parts clean and waxed. The edges of the mounting flanges of the rails should also be cleaned. Any dirt that remains under the edge of the flange will begin to look like rust. In regular use (i.e. no damage), the parts should be cleaned and waxed at least twice every summer. The rails should also be cleaned and waxed in autumn, when the boat is put into winter storage.

6.6 Care instructions for the remote control

Normally, the remote control needs no other maintenance apart from greasing and calibration during winter servicing. If the remote control becomes stiff for any reason, it needs to be serviced immediately.

6.7 Care instructions for the steering system

The hydraulic steering does not require maintenance under normal circumstances. If the steering starts feeling ”loose”, there is a leak in the system. The leak must be repaired immediately!

WARNING! A hydraulic steering system with a leak or air in the system is extremely dangerous.

6.8 Care instructions for electrical components

Electrical components like main switches, other switches and couplings do not normally need to be serviced if the boat is stored in a dry and well-ventilated place for the winter. If, however, you wish to protect electrical components against oxidation, the best way to do it is by spraying them every now and then with a moisture repellent antioxidant.

6.9 Minor superficial repairs

You can repair minor damage to the boat's gelcoat surface yourself.
However, achieving a neat, unnoticeable repair requires a considerable amount of skill:

1. Protect the area around the damage with tape.
2. Bevel the edges of the damaged area and clean with acetone.
3. If the damage is deeper than 2 mm, it is advisable to smooth it with an appropriate polyfiller before painting.
4. Mix topcoat with 1.5-2% hardener.
5. Fill the repair with more topcoat than needed, so that its surface remains slightly proud of the surrounding area.
6. Carefully put tape over the repair.
7. After the topcoat has hardened, remove the tape and sand the repair using 600 and 1200 paper applying water.
8. Buff using abrasive paste and wax.

The colours used on this boat are specified in the technical specifications. One point to consider is that a paint called gelcoat has been used in manufacturing the boat, but the surface is always repaired with a paint called topcoat. Gelcoat paint does not harden without a mould surface, whereas paraffin has been added to topcoat to allow it to harden.

WARNING! Be careful when handling the hardening agent. If the hardening agent vessel/bottle leaks, or if hardener falls on, e.g., a dirty floor or rag, there is a very high risk of fire. Do not throw rags or vessels containing topcoat/hardener mixture into the rubbish bin. Always use eye protection when handling topcoat or hardener. If you get hardener in your eyes, rinse your eyes immediately with tap water and see a physician.

NOTE! Post-delivery installations and alteration work may cause damage to the structure of the boat or impair safety if not performed correctly. Please contact the dealer if you are planning any modifications.

NOTE! It is important to use aluminum or stainless steel screws and rivets when installing accessories. There are ready-made fittings for a depth finder sensor (Garmin) on the boat's transom.

NOTE! When installing accessories on an aluminum surface (except in their pre-ordained places), always use aluminum rivets and insulating washers to avoid corrosion.

7 Winter storage

Preparing your boat for winter storage is an annual routine. Have your boat lifted in good time before the water freezes. Your boat is not designed for use in ice and it is not meant to be used in temperatures below zero (for example, the rain water draining system will freeze up). It is advisable to perform all maintenance, repair and inspection procedures in connection with placing the boat in winter storage.

Familiarise yourself with the service procedures shown in the engine manual. We recommend that you leave them to an authorised service agent. Do not forget to service the remote control and steering system. Make sure to perform their maintenance according to their separate instructions and manuals.

7.1 Measures before winter storage

Have your boat lifted in good time before the water freezes. Your boat is not designed for being driven in ice, or for remaining in the water when it freezes.

Wash the bottom of the boat immediately after the boat has been lifted. Algae and slime will come off easier if they are not left to dry. Empty the engine of its cooling water according to the manual.
Give the engine and other equipment their winter servicing, following their separate manuals. If your boat is stored outside or in a humid place over the winter, empty it of textiles and other equipment that may corrode or become mouldy in damp conditions. Wash the ropes in fresh water. Replace any worn ropes. Leave bushing valves open. Remove the drain plug for the winter.

Electronic instruments are best protected against oxidation and theft by detaching them and removing them to a dry indoor environment for the winter. Detach the batteries and store them in a warm, dry place. Charge the batteries at least twice during the winter. Spray the couplings of the electrical system with an appropriate water repellent antioxidant.

Always cover your boat so that snow cannot gather inside. Always make sure, however, that it is adequately ventilated. A winter storage cover is available as an optional extra for your boat.

NOTE! Make sure that the winter storage cover or its ropes do not touch the aluminum hull. If the cover or its ropes abrade the hull, they will leave black marks on it.

7.2 Measures before launching the boat

Repair possible damage to the gelcoat surface according to section 6.9.

In coastal areas, antifouling paint should be used to prevent the hull from becoming covered with vegetation. Fouling of the bottom and, especially, the propeller increases fuel consumption remarkably. However, if the boat is anchored at the inlet of a stream, in a land-locked lake, or if it is lifted out of the water at least once every two weeks, it is normally not necessary to use antifouling paint. Carefully follow the paint manufacturer's instructions when applying the paint. When sanding old antifouling paint, remember that the dust is toxic. Antifouling paint is not necessary in lake areas.

NOTE! Do not apply any paint to the zinc anodes, depth finder sensor, or the piston rods of the hydraulic trim tabs. Do not apply paints containing copper or lead on aluminum parts and remember to follow the paint manufacturer's instructions. The warranty does not cover damage caused to the hull by antifouling paint containing lead or copper.

Useful tip: Do not throw away a used paint brush. A hardened antifouling paint brush can be reused if you first soak it for a couple of hours in a mix of 2 litres of hot water, 100 ml of vinegar, and 50 ml of baking powder.

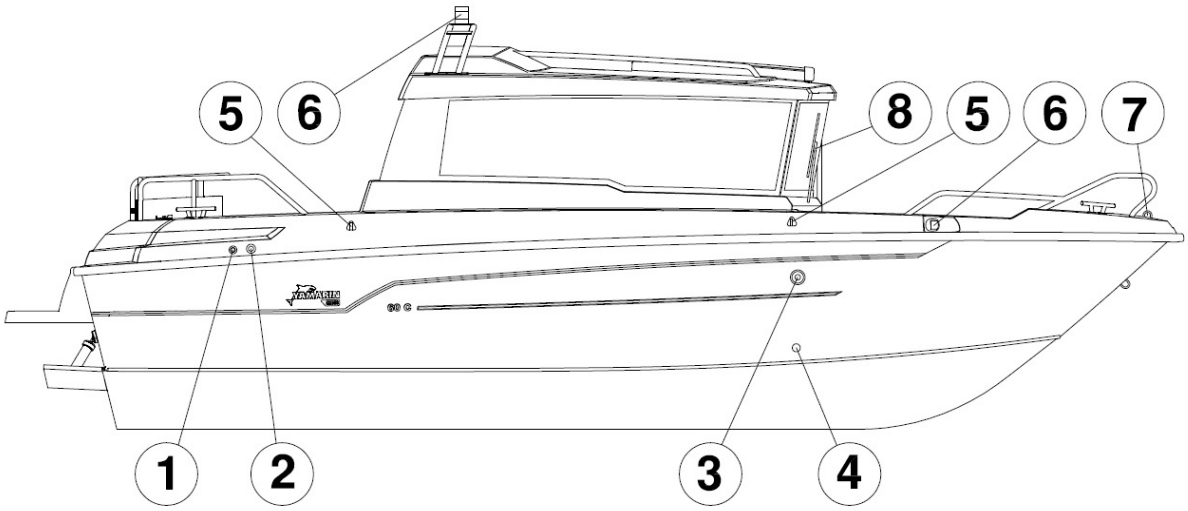
Perform the necessary service procedures required for the engine according to the engine manual. Check the functioning of electric equipment and remove possible oxidation from fuse connectors etc.

Remember that petrol goes stale over time, and you must always start the engine with fresh petrol in the spring.

When the boat has been launched you should open all hull bushings and check to ensure that there are no leaking hoses or connectors. The locations of the through fittings are presented in Chapter 5. Bring your safety equipment back on board before setting out.

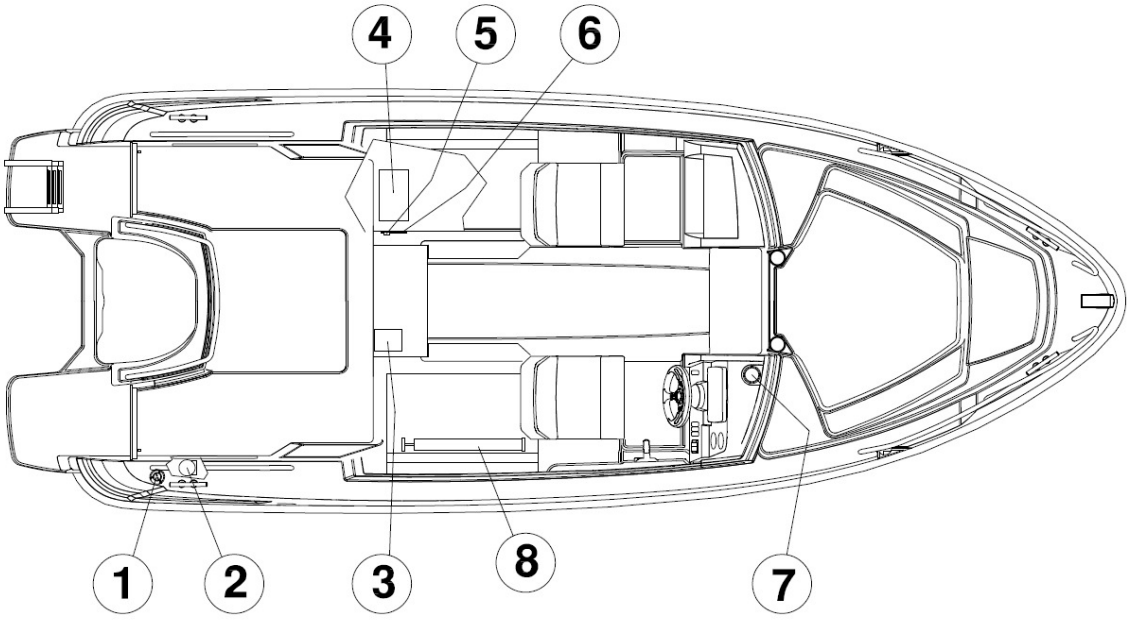
8 Lay-out

8.1 General lay-out



1. Fuel tank vent
2. Manual bilge pump through fitting
3. Heater exhaust (optional accessory)
4. Bow cockpit space drainage opening
5. Fender hook
6. Navigation light
7. Hook for locking the boat
8. Windshield wiper

Image: General lay-out.



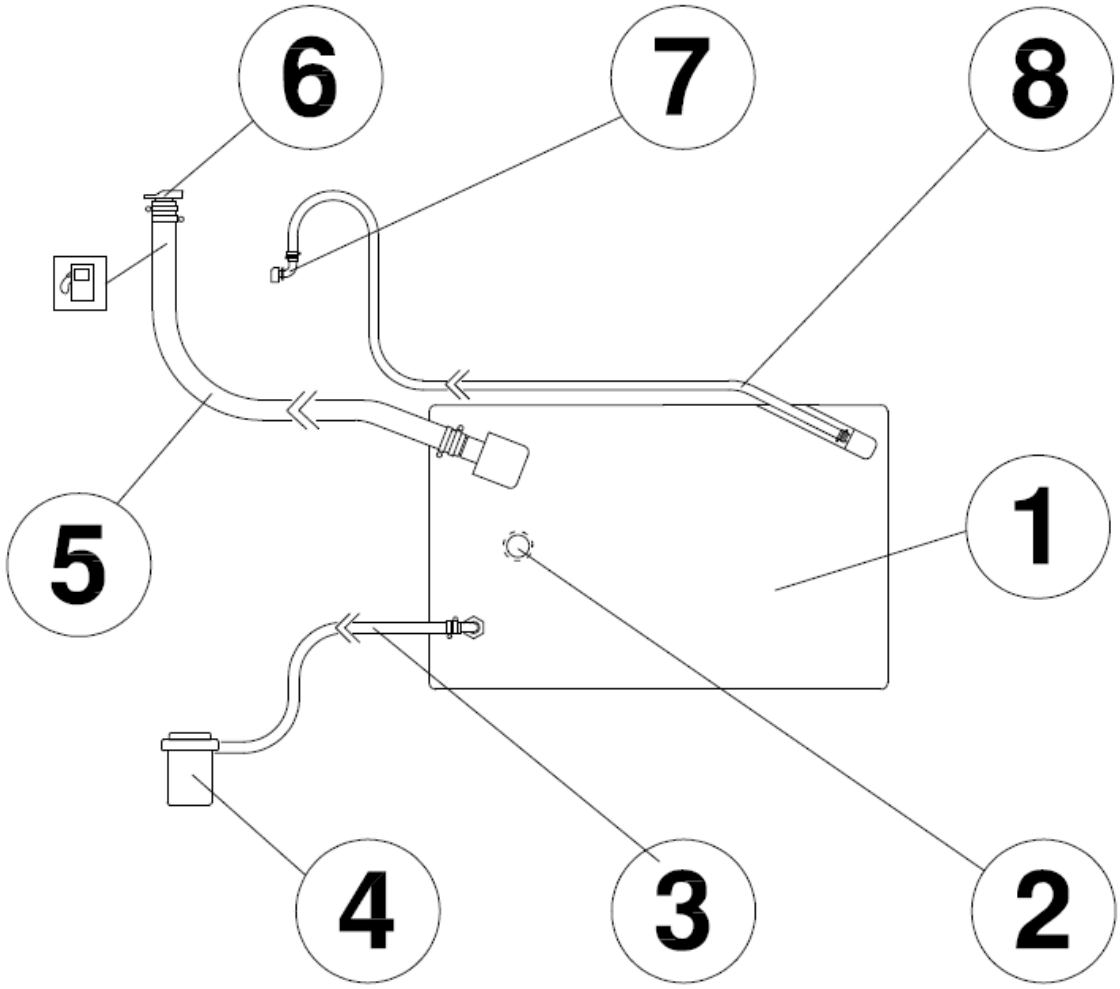
1. Fuel refill
2. Fuel filter
3. Trim cylinder tank (optional accessory)
4. Battery (not standard equipment)
5. Main switch
6. Fuse panel
7. Demisting blower
8. Manual drainage pump

Image: General lay-out.

WARNING! Handle the boat's hatches with care and watch your fingers and toes.

8.2 Fuel system

The boat is equipped with a built-in fuel tank. A fuel filter is installed in the fuel line, also functioning as a water separator. The filter must be changed at least once a year. When a new or removed filter has been mounted, the fuel line must be filled with a ball pump before starting the engine.



1. Fuel tank
2. Fuel tank sensor
3. Fuel feed hose
4. Fuel filter
5. Fuel tank refill hose
6. Fuel refill
7. Fuel tank vent
8. Fuel tank breather hose

Image: Fuel system.

8.3 Steering system

The boat is equipped with hydraulic steering. With hydraulic steering, the steering wheel's position changes constantly, which is why the boat is equipped with a symmetrical steering wheel. The length of the hydraulic hoses is 5.5 metres.

The hydraulic steering does not require maintenance under normal circumstances. If the

steering starts feeling ”loose”, there is a leak in the system. The leak must be repaired immediately!

NOTE! If you want to replace a component in the steering system, please note that all components must conform to the ISO 10592 standard and carry the CE mark.

WARNING! A hydraulic steering system with a leak or air in the system is extremely dangerous.

8.4 Electrical system

The electrical system installed into the boat as standard equipment consists of the following main parts:

1. Battery (not standard equipment)
2. Wire harness
3. Main switch and fuse panel
4. Steering wheel panel and switches
5. Two spaces for extra switches
6. 12V outlet
7. Navigation lights
8. Windshield wiper (right side)
9. Windshield wiper (left side)
10. Cabin light
11. Deck lights
12. Trim tabs (optional accessory)
13. Demisting blower

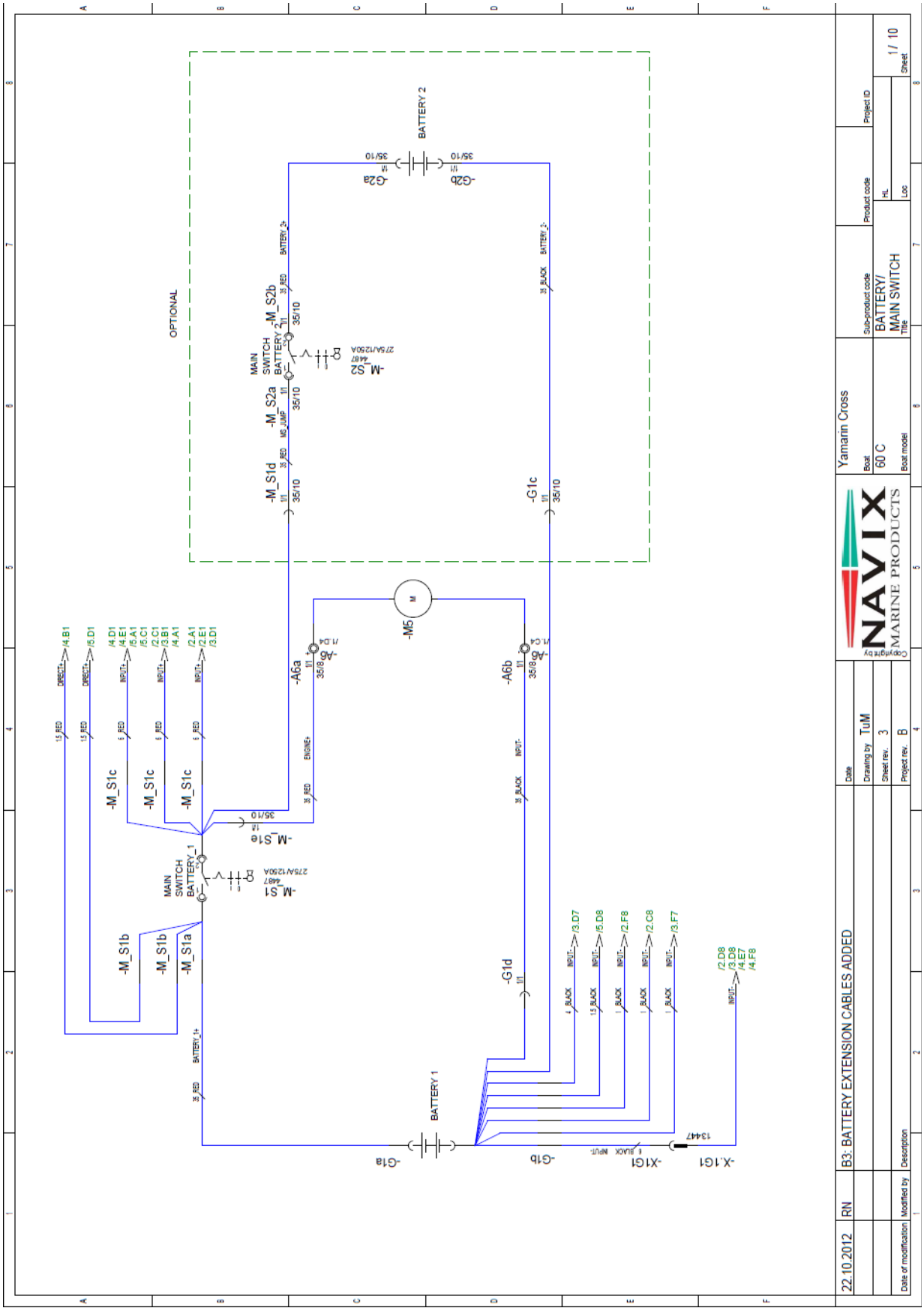
In addition, the engine is an essential part of the boat's electrical system, which functions both as a power source and a consumer of power.

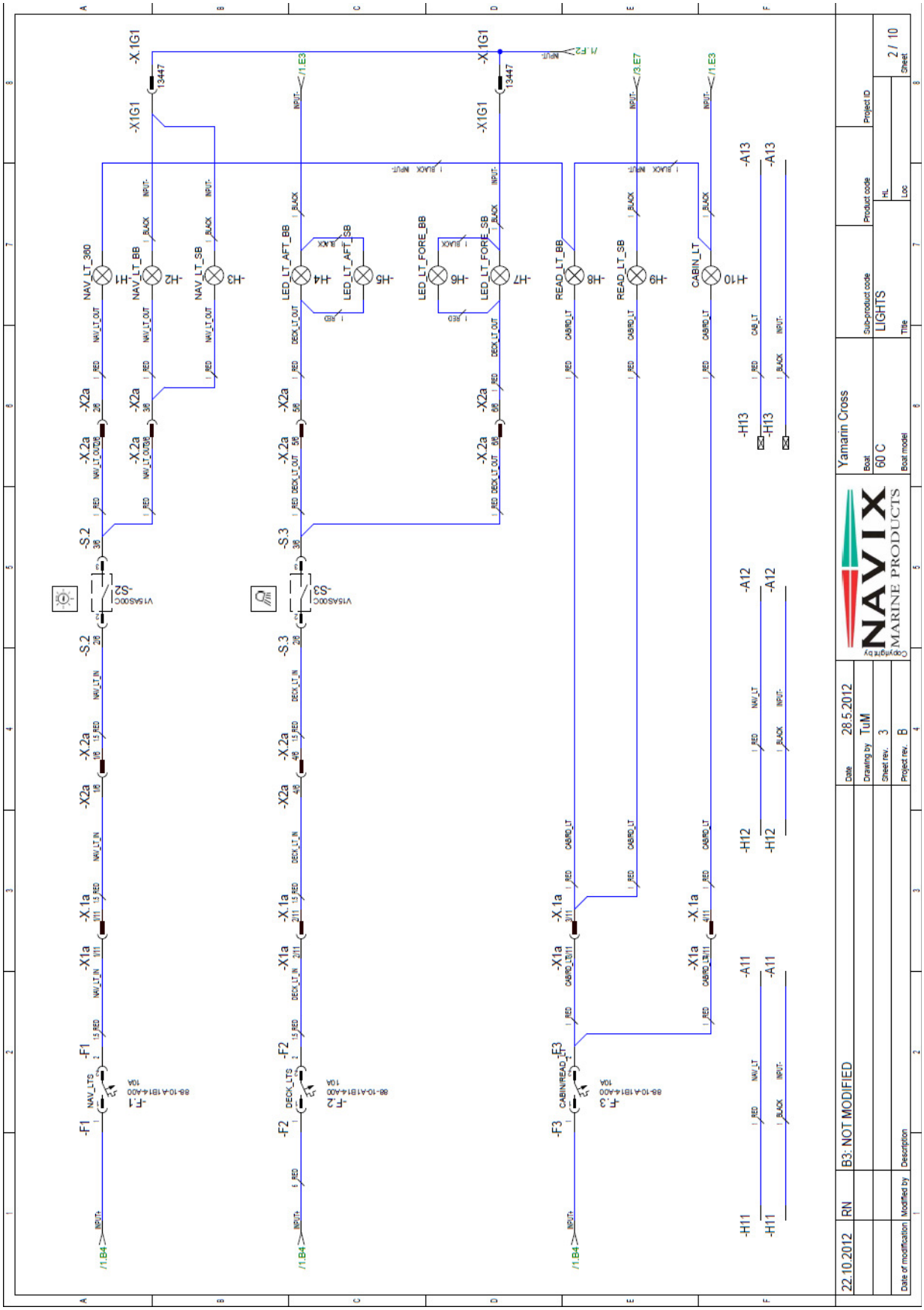
Switch off the main switch when leaving the boat for a long period of time. Remember also to switch off the main switch before making any electrical installations.

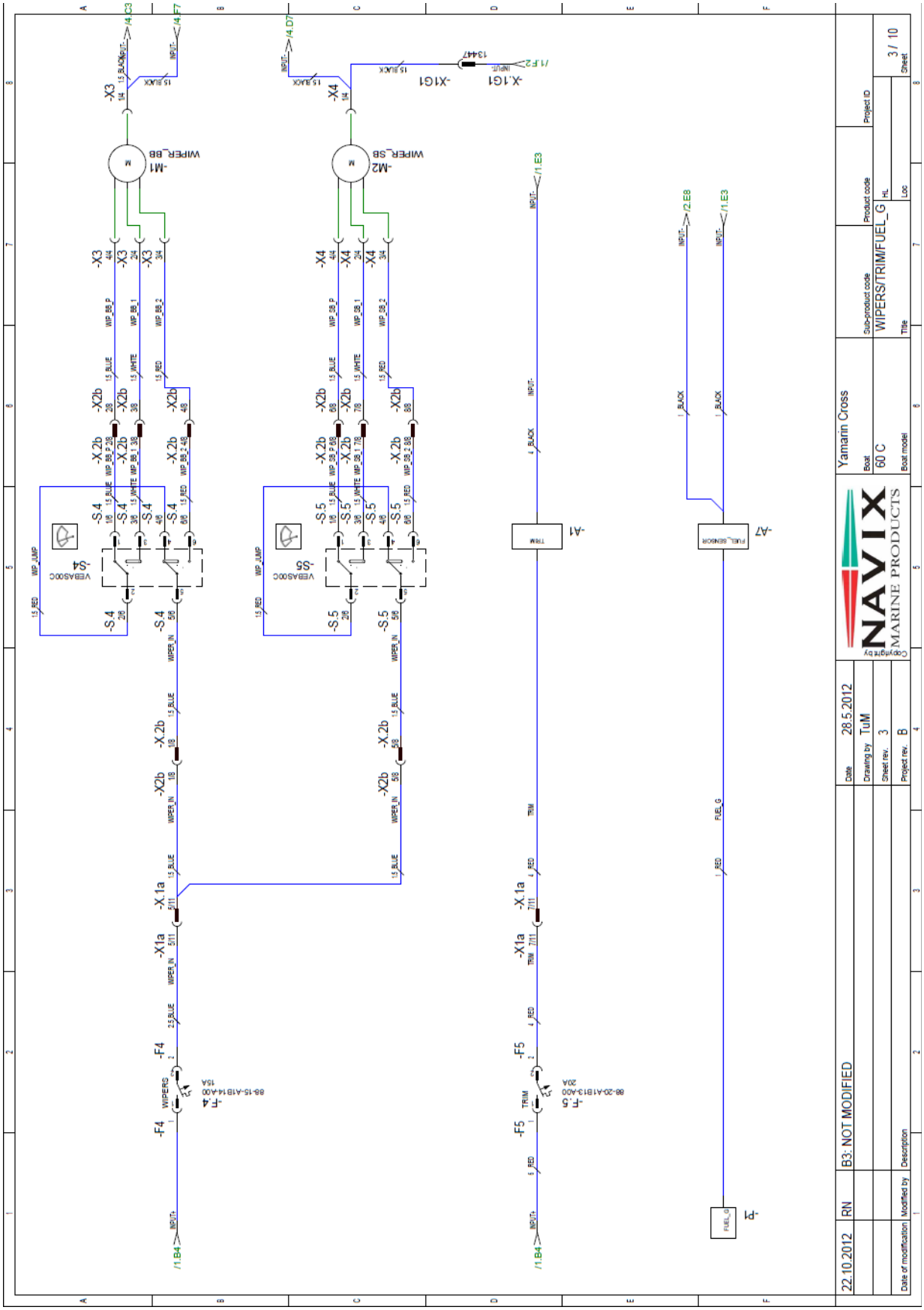
If you connect or disconnect the battery, take care not to touch both battery terminals with a metal object at the same time. Please remember to observe caution in other respects as well if you have to charge the battery with a separate charger, Recharging with an overly large current creates a risk of explosion.

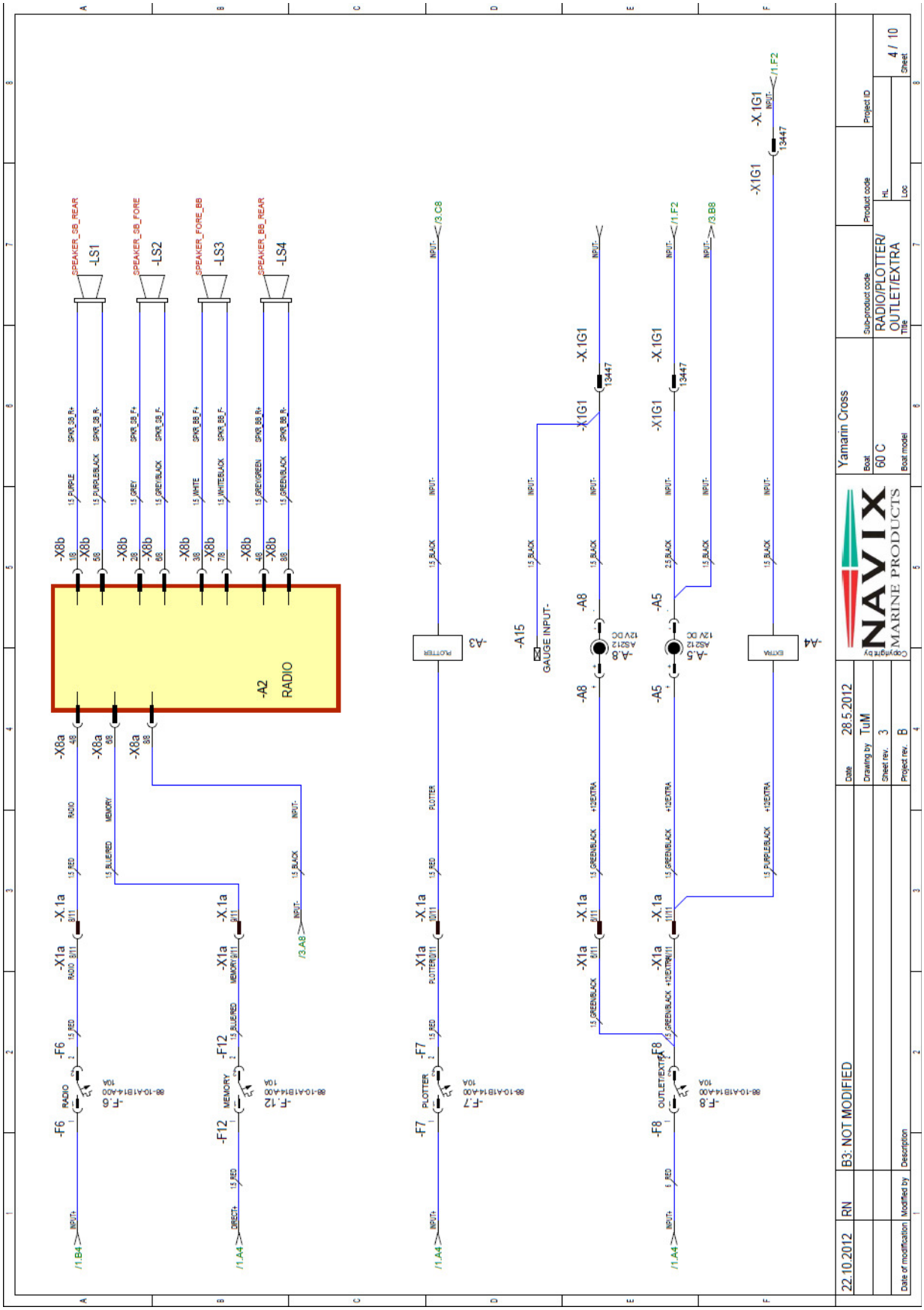
Do not alter the onboard electric system or relevant drawings; alterations and maintenance work have to be carried out by a professional.

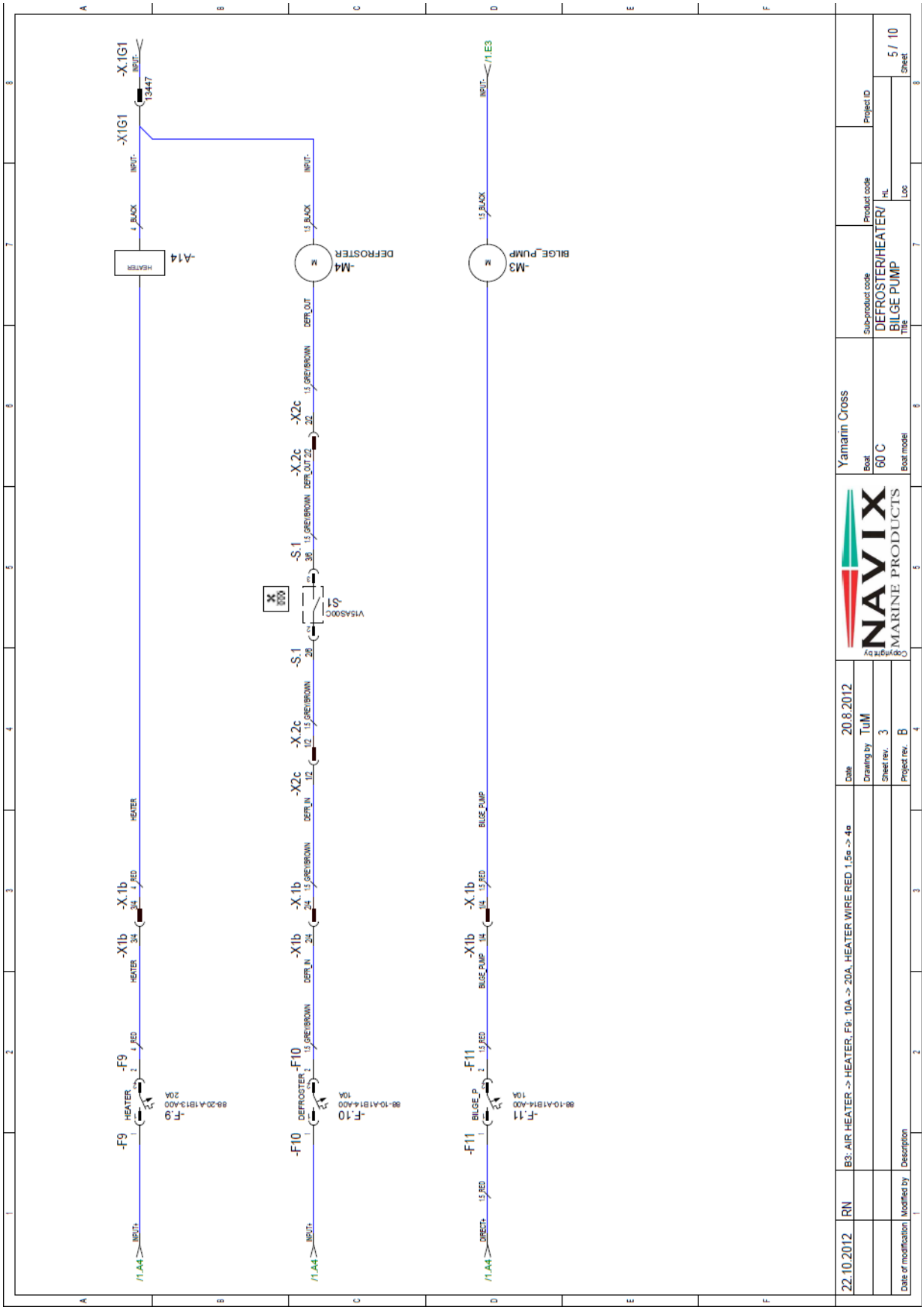
8.5 Wiring diagram

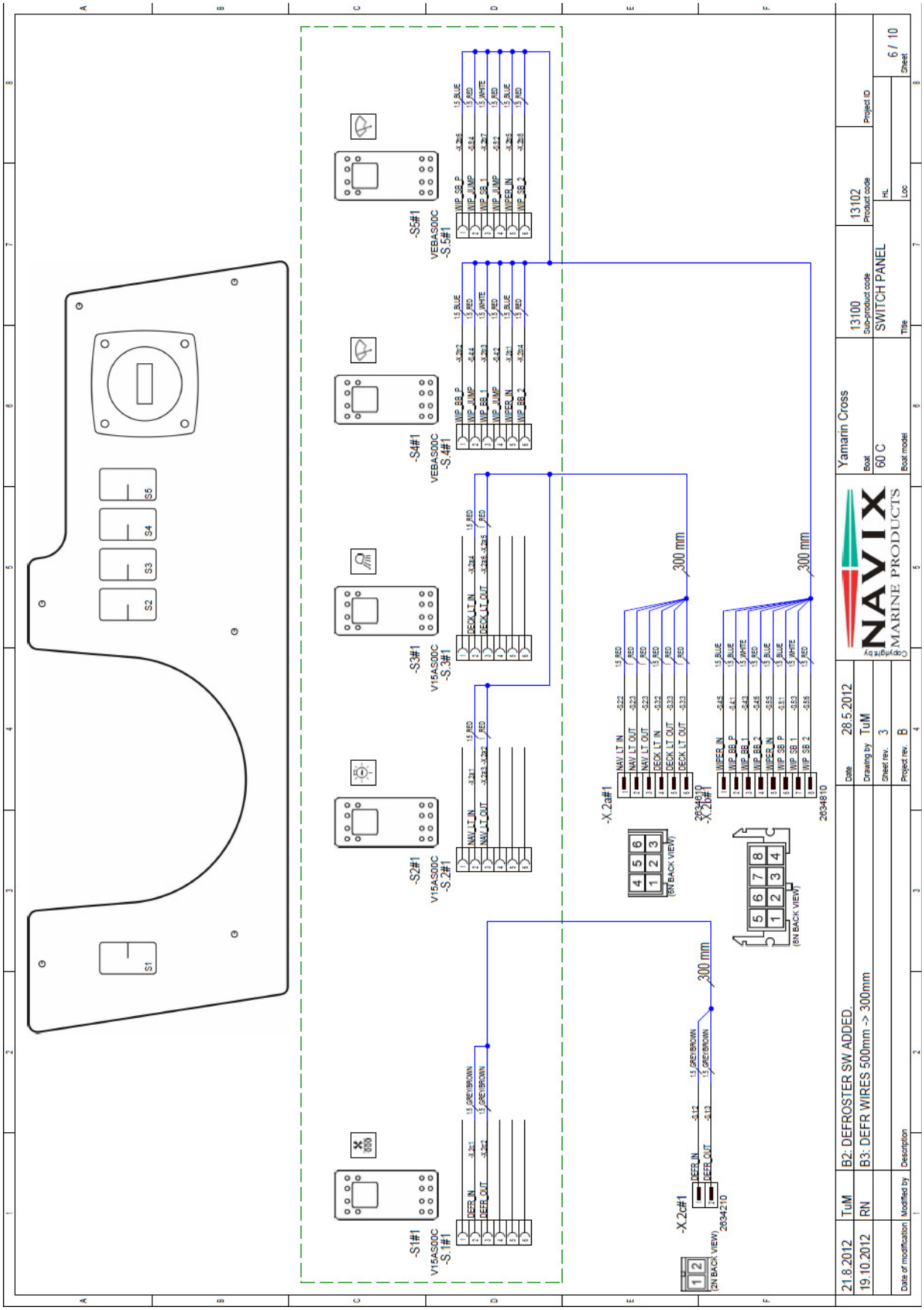


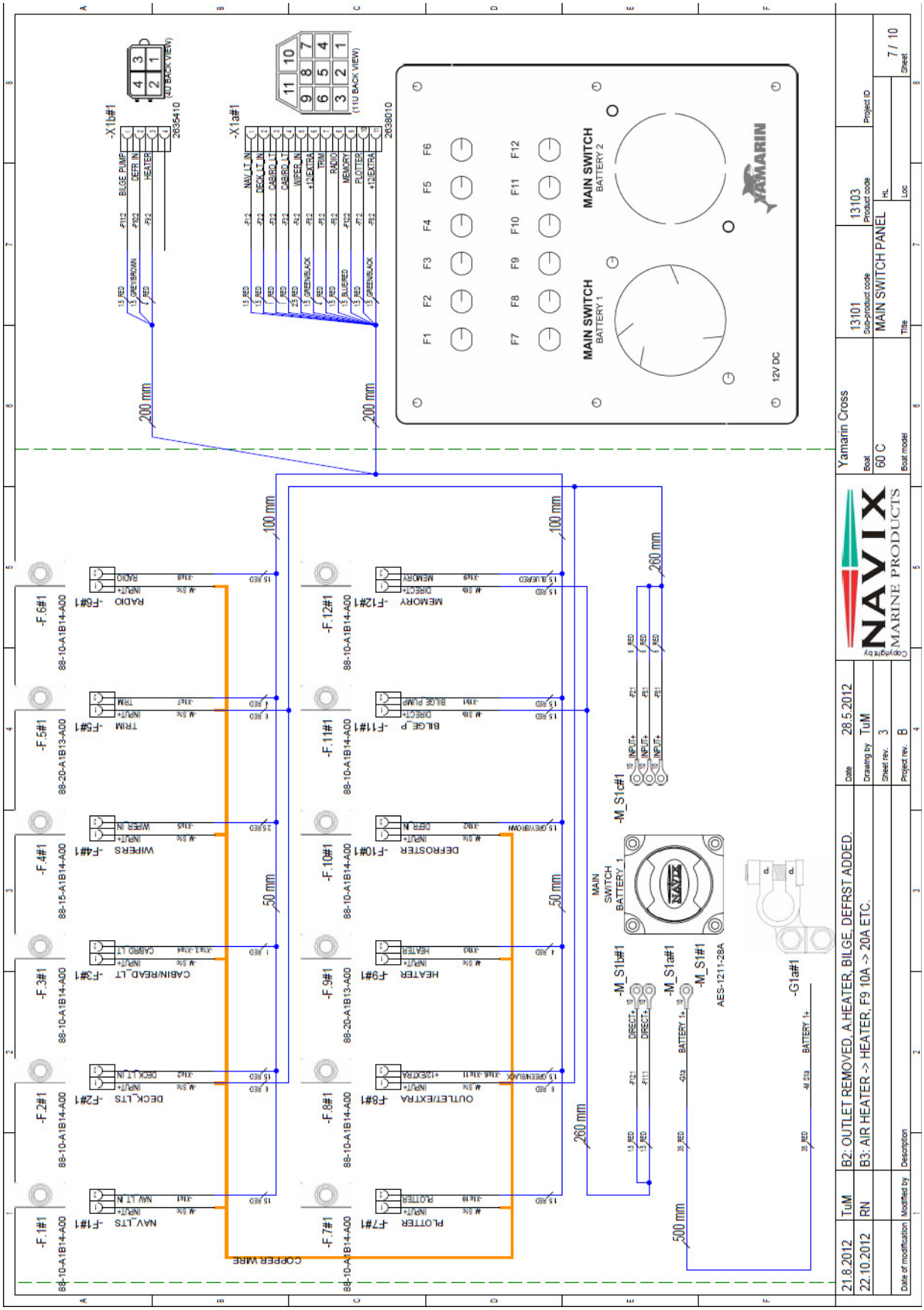

NAV_LT_360
NAV_LT_BB
NAV_LT_SB
LED_LT_AFT_BB
LED_LT_AFT_SB
LED_LT_FORE_BB
LED_LT_FORE_SB
READ_LT_BB
READ_LT_SB
CABIN_LT
NAV_LTS
DECK_LTS
CABIN/READ_LT
Yamarin Cross
60 C
LIGHTS
NAVIX MARINE PRODUCTS
22.10.2012
28.5.2012
B3: NOT MODIFIED

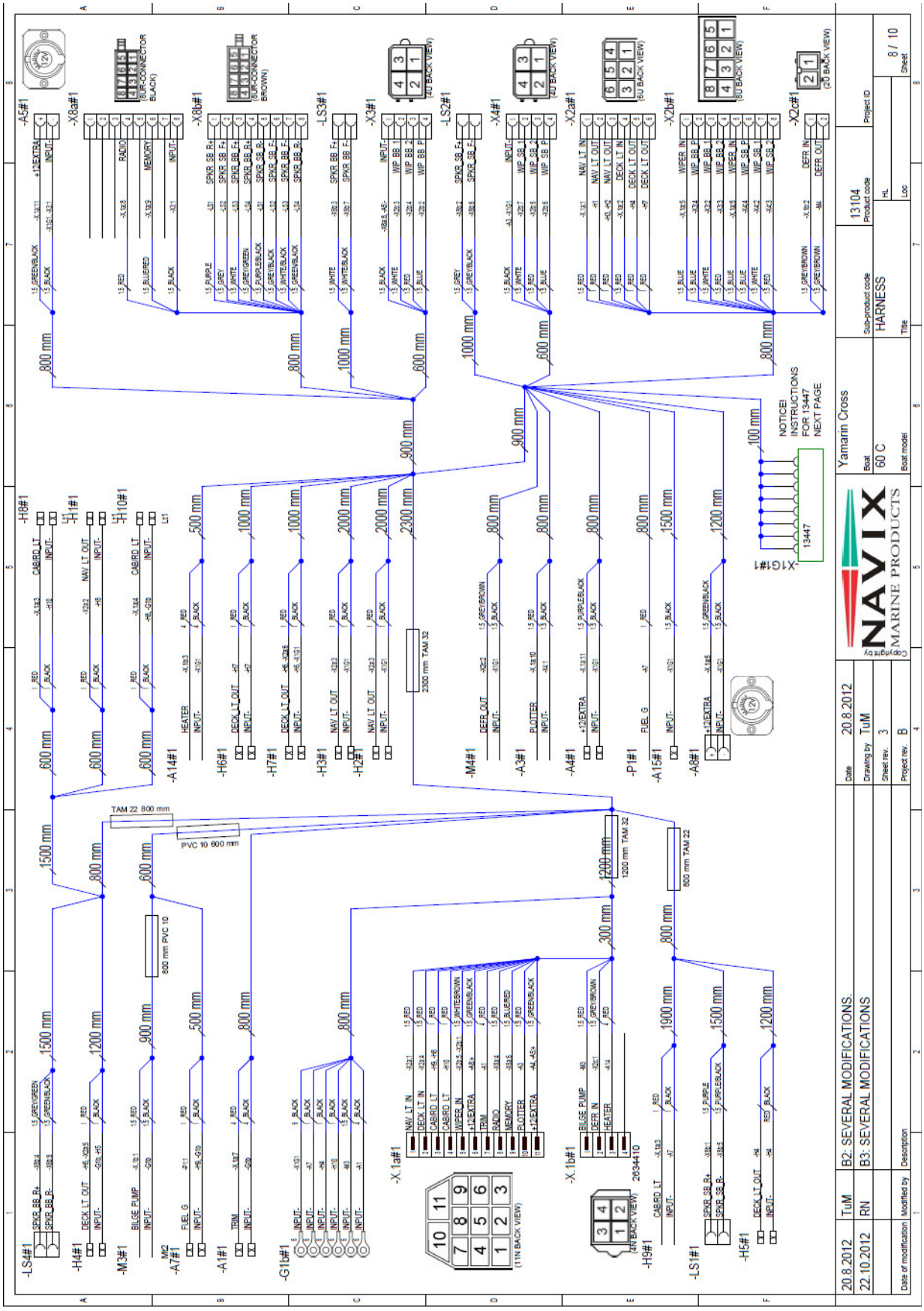

Yamarin Cross
60 C
WIPERS/TRIM/FUEL_G
3 / 10
28.5.2012
22.10.2012
RN
B3: NOT MODIFIED
NAVIX
MARINE PRODUCTS
WIPER_BB
WIPER_SB
TRIM
FUEL_SENSOR
FUEL_G
WIPERS
WIP_JUMP
VEBAS00C

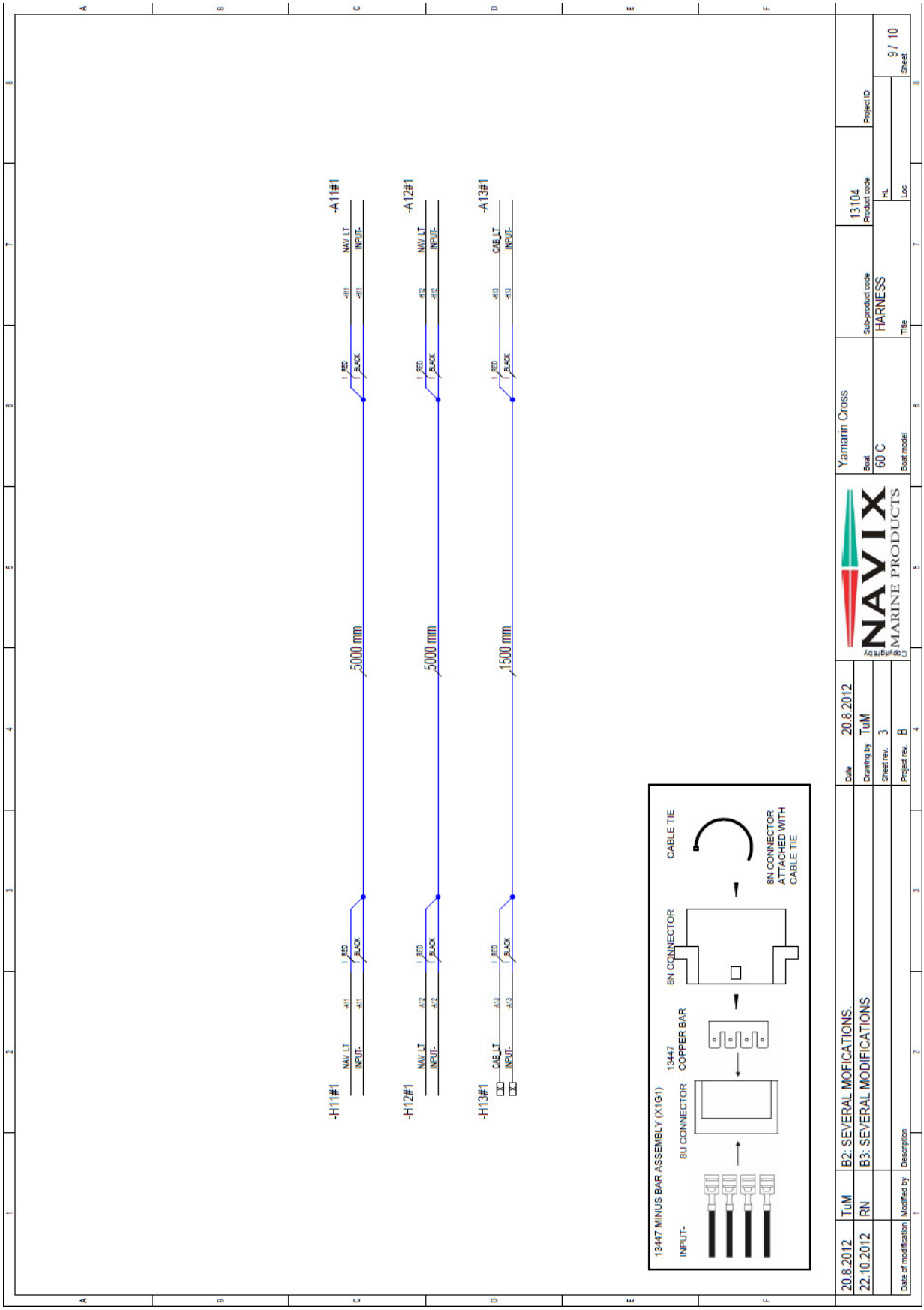

-A2
RADIO
-LS1
-LS2
-LS3
-LS4
-A3
-A4
-A15
GAUGE INPUT-
-A8
-A5
-F6
-F12
-F7
-F8
-X1G1
-X8a
-X8b
-X1a
Yamarin Cross
60 C
RADIO/PLOTTER/
OUTLET/EXTRA
NAVIX
MARINE PRODUCTS
22.10.2012
RN
B3: NOT MODIFIED
28.5.2012
TuM
4 / 10

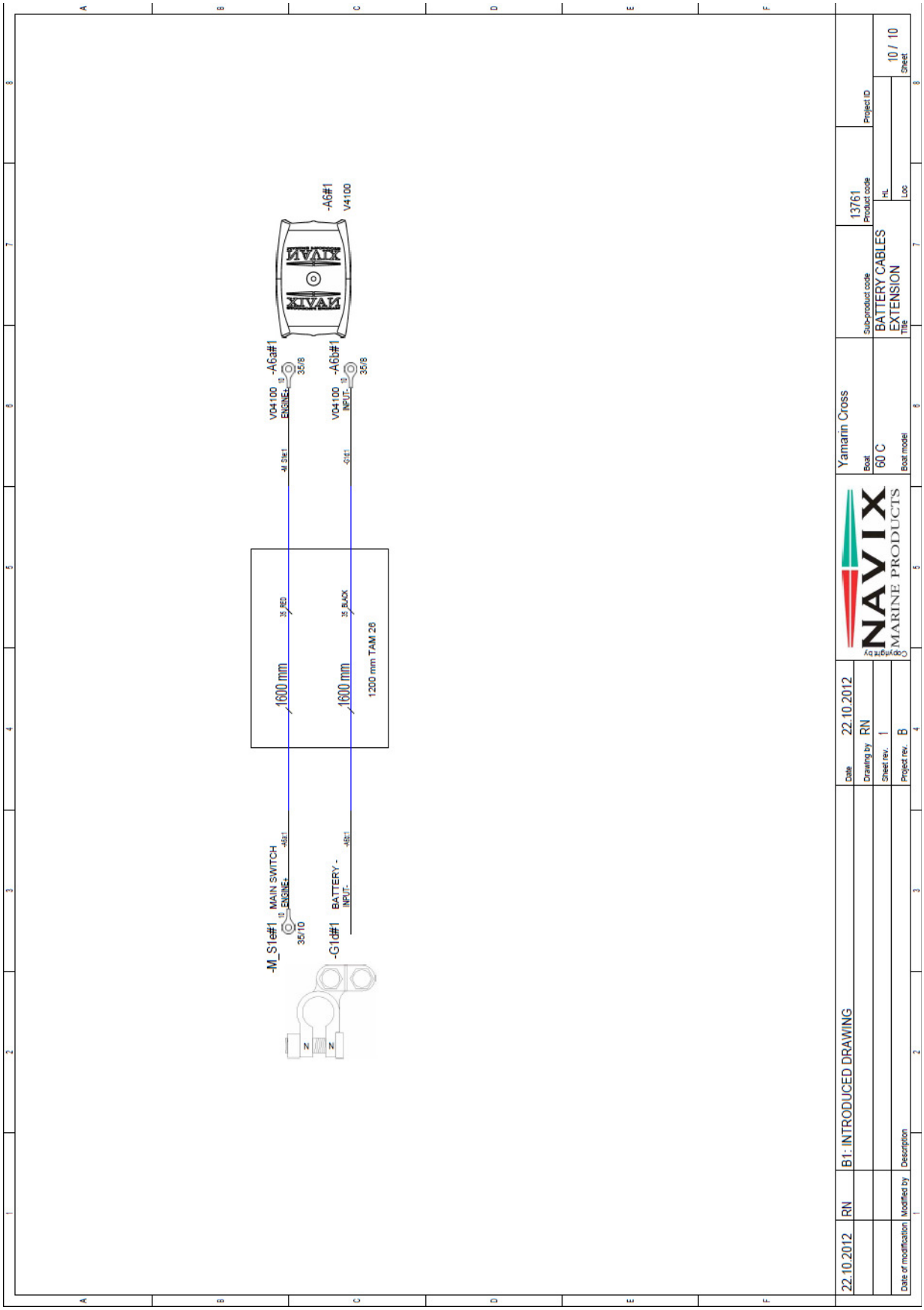

-X1G1
13447
-A14
HEATER
-M4
DEFROSTER
-M3
BILGE_PUMP
-S1
V15AS00C
-F9
HEATER
-F10
DEFROSTER
-F11
BILGE_P
-F.9
88-20-A1B13-A00
20A
-F.10
88-10-A1B14-A00
10A
-F.11
88-10-A1B14-A00
10A
-X1b
-X2c
/1.A4
/1.E3
Yamarin Cross
60 C
DEFROSTER/HEATER/
BILGE PUMP
NAVIX
MARINE PRODUCTS
22.10.2012
RN
B3: AIR HEATER -> HEATER, F9: 10A -> 20A, HEATER WIRE RED 1.5s -> 4s
20.8.2012
TuM
5 / 10


S1
S2
S3
S4
S5
-S1#1
V15AS00C
-S.1#1
-S2#1
V15AS00C
-S.2#1
-S3#1
V15AS00C
-S.3#1
-S4#1
VEBAS00C
-S.4#1
-S5#1
VEBAS00C
-S.5#1
DEFR_IN
DEFR_OUT
NAV LT IN
NAV LT OUT
DECK LT IN
DECK LT OUT
WIP_BB_P
WIP_JUMP
WIP_BB_1
WIP_BB_2
WIPER_IN
WIP_SB_P
WIP_SB_1
WIP_SB_2
15 RED
15 BLUE
15 WHITE
15 GRE/BROWN
300 mm
-X.2a#1
-X.2b#1
2634610
-X.2c#1
2634210
2634810
(2N BACK VIEW)
(6N BACK VIEW)
(8N BACK VIEW)
Yamarin Cross
Boat
60 C
Boat model
13100
Sale-product code
SWITCH PANEL
Title
13102
Product code
Project ID
HL
Loc
6 / 10
Sheet
Date
28.5.2012
Drawing by
TuM
Sheet rev.
3
Project rev.
B
21.8.2012
TuM
B2: DEFROSTER SW ADDED.
19.10.2012
RN
B3: DEFR WIRES 500mm -> 300mm
Date of modification
Modified by
Description
NAVIX
MARINE PRODUCTS
Copyright by


MAIN SWITCH
BATTERY 1
MAIN SWITCH
BATTERY 2
12V DC
YAMARIN
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
-X1b#1
-X1a#1
BILGE PUMP
DEFR_IN
HEATER
NAV_LT_IN
DECK_LT_IN
CABIN_LT
CABRD_LT
WIPER_IN
+12EXTRA
TRIM
RADIO
MEMORY
PLOTTER
+12EXTRA
200 mm
100 mm
50 mm
260 mm
500 mm
COPPER WIRE
-F.1#1
-F.2#1
-F.3#1
-F.4#1
-F.5#1
-F.6#1
-F.7#1
-F.8#1
-F.9#1
-F.10#1
-F.11#1
-F.12#1
NAV_LTS -F1#1
DECK_LTS -F2#1
CABIN/READ_LT -F3#1
WIPERS -F4#1
TRIM -F5#1
RADIO -F6#1
PLOTTER -F7#1
OUTLET/EXTRA -F8#1
HEATER -F9#1
DEFROSTER -F10#1
BILGE_P -F11#1
MEMORY -F12#1
-M_S1a#1
-M_S1b#1
-M_S1c#1
AES-1211-28A
-G1a#1
Yamarin Cross
60 C
13101
MAIN SWITCH PANEL
13103
7 / 10
NAVIX
MARINE PRODUCTS
Copyright by
21.8.2012 TuM B2: OUTLET REMOVED, A.HEATER, BILGE, DEFRST ADDED.
22.10.2012 RN B3: AIR HEATER -> HEATER, F9 10A -> 20A ETC.


Yamarin Cross
60 C
HARNESS
13104
8 / 10
20.8.2012
TuM
B2: SEVERAL MODIFICATIONS.
22.10.2012
RN
B3: SEVERAL MODIFICATIONS
NAVIX
MARINE PRODUCTS
NOTICE! INSTRUCTIONS FOR 13447 NEXT PAGE
13447
TAM 22 800 mm
PVC 10 600 mm
800 mm PVC 10
2300 mm TAM 32
1200 mm TAM 32
800 mm TAM 22


-A11#1
-A12#1
-A13#1
NAV LT
CAB LT
INPUT-
RED
BLACK
5000 mm
1500 mm
-H11#1
-H12#1
-H13#1
13447 MINUS BAR ASSEMBLY (X1G1)
INPUT-
8U CONNECTOR
13447
COPPER BAR
8N CONNECTOR
CABLE TIE
8N CONNECTOR
ATTACHED WITH
CABLE TIE
Yamarin Cross
Boat
60 C
Boat model
HARNESS
Title
13104
Product code
HL
Loc
Project ID
9 / 10
Sheet
NAVIX
MARINE PRODUCTS
Date 20.8.2012
Drawing by TuM
Sheet rev. 3
Project rev. B
20.8.2012 TuM B2: SEVERAL MOFICATIONS.
22.10.2012 RN B3: SEVERAL MODIFICATIONS
Date of modification | Modified by | Description


-AG#1
V4100
-AGd#1
VD4100
ENGINE:
35/8
-AGb#1
VD4100
INPUT:
35/8
1600 mm
35_RED
1600 mm
35_BLACK
1200 mm TAM 26
-M_S1e#1 MAIN SWITCH
ENGINE:
35/10
-G1d#1 BATTERY -
INPUT:
Yamarin Cross
Boat
60 C
Boat model
BATTERY CABLES
EXTENSION
Title
13761
Product code
Sub-product code
Project ID
HL
Loc
10 / 10
Sheet
NAVIX
MARINE PRODUCTS
Date 22.10.2012
Drawing by RN
Sheet rev. 1
Project rev. B
B1: INTRODUCED DRAWING
22.10.2012 RN
Date of modification Modified by Description